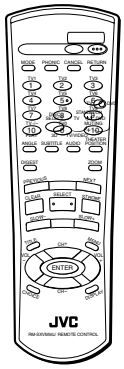
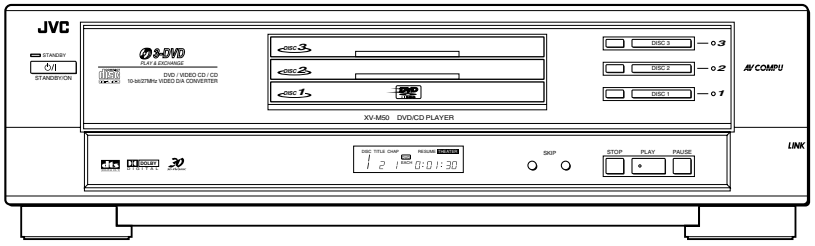
JVC

SERVICE MANUAL

DVD VIDEO PLAYER

XV-M52SL
XV-M50BK





[XV-M52SL]

Area Suffix

B ---------- U.K.
EN ----- Northern Europe
UN ---------- Asean
US ---------- Singapore
UW -- Brazil,Mexico,Peru

[XV-M50BK]

Area Suffix

UJ ---------- U.S.military

Each difference point

Model	Body color
XV-M50BK	Black
XV-M52SL	Silver

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▬) and ICP (⬬) or identified by the "⚠" mark nearby are critical for safety.
When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the JC version)

Contents

Safety precautions ---------- 1-2
Preventing static electricity ---------- 1-3
Precautions for Service ---------- 1-4
Disassembly method ---------- 1-5
Adjustment method ---------- 1-20
Description of major ICs ---------- 1-24

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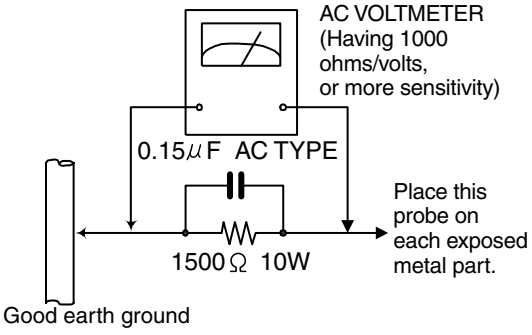
No.A0015
July, 2001

Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to eachexposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▮) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.
When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the J and C version)

Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.1. Grounding to prevent damage by static electricity

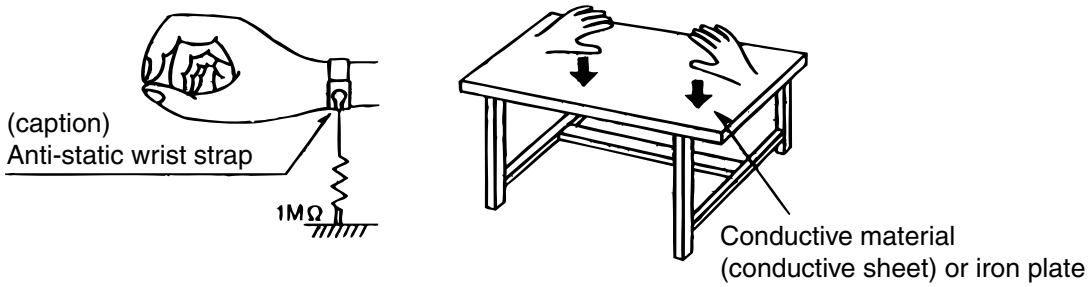
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players. Be careful to use proper grounding in the area where repairs are being performed.

1.1.1. Ground the workbench

1. Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

1.1.2. Ground yourself

1. Use an anti-static wrist strap to release any static electricity built up in your body.



1.1.3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the next page.)

2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

1.2. Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.

2. For specific details, refer to the replacement procedure in the text. Be careful not to take too long a time when attaching it to the connector.

3. Handle the flexible cable carefully as it may break when subjected to strong force.

4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it

Precautions for Service

Handling of Traverse Unit and Laser Pickup

1. Do not touch any peripheral element of the pickup or the actuator.
2. The traverse unit and the pickup are precision devices and therefore must not be subjected to strong shock.
3. Do not use a tester to examine the laser diode. (The diode can easily be destroyed by the internal power supply of the tester.)
4. When replacing the pickup, after mounting a new pickup, remove the solder on the short land which is provided at the center of the flexible wire to open the circuit.
5. Half-fixed resistors for laser power adjustment are adjusted in pairs at shipment to match the characteristics of the optical block.
   Do not change the setting of these half-fixed resistors for laser power adjustment.

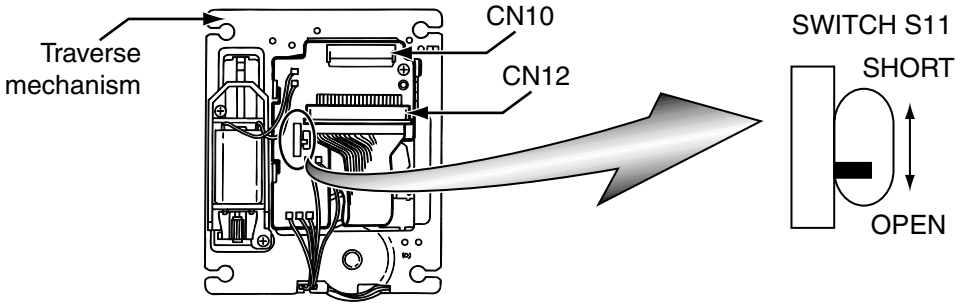
Destruction of Traverse Unit and Laser Pickup by Static Electricity

Laser diodes are easily destroyed by static electricity charged on clothing or the human body. Before repairing peripheral elements of the traverse unit or pickup, be sure to take the following electrostatic protection:

1. Wear an antistatic wrist wrap.
2. With a conductive sheet or a steel plate on the workbench on which the traverse unit or the pick up is to be repaired, ground the sheet or the plate.

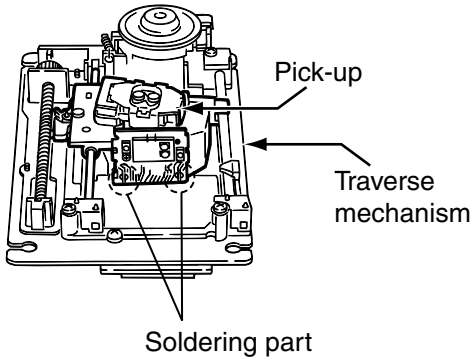
When you remove the traverse mechanism from the servo control substrate

The laser diode of pick-up might be destroyed by static electricity and set switch (S11) on the pick-up board on "SHORT" side, please before removing the card wire from connector (CN10).
Moreover, please set switch (S11) on "OPEN" side after assembling and inserting the card wire in connector (CN10) without fail at times.



When you remove the pick-up from the traverse mechanism

The laser diode of the pick-up might be destroyed by static electricity, and solder with part a, please before extracting a flexible wire from connector (CN12).
Moreover, please remove solder in part a after inserting a flexible wire in connector (CN12).



Disassembly method

<Main body>

■ Removing the top cover (See Fig.1)

1. Remove the two screws **A** attaching the top cover on the back of the body.

2. Remove the four screws **B** attaching the top cover on both sides of the body.

3. Pull the lower parts of the top cover sides and remove the top cover in the direction of the arrow.

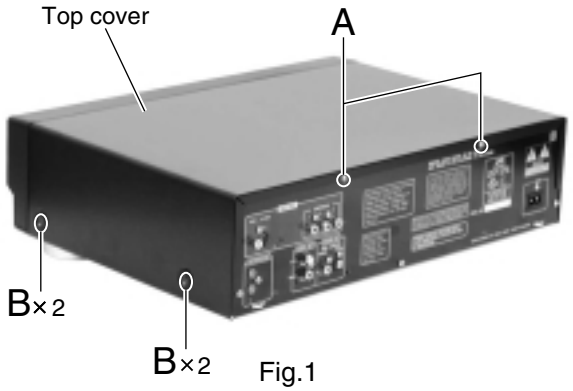


Fig.1

■ Removing the front panel assembly (See Fig.2 to 5)

・ Prior to performing the following procedure, remove the top cover.

1. Disconnect the wire from connector CN971 on the power supply board.

2. Disconnect the card wire from connector CN703 on the system control board.

3. Remove the three screws **C** attaching the front panel assembly on the bottom of the body.

4. Release the joint **a** on the bottom and the two joints **b** on both sides of the body. Remove the front panel assembly toward the front.

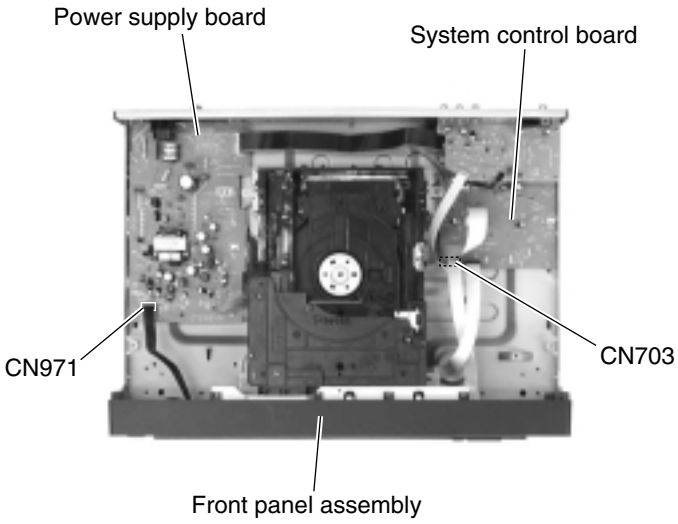


Fig.2

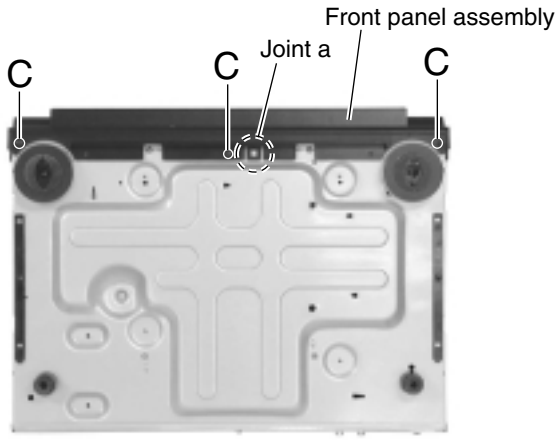


Fig.3

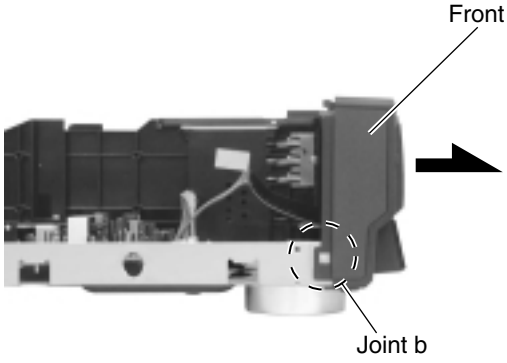


Fig.4

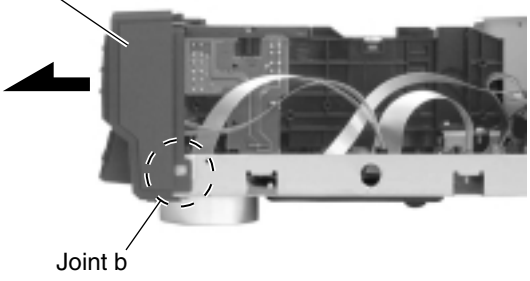


Fig.5

■ Removing the rear panel (See Fig.6)

・ Prior to performing the following procedure, remove the top cover.

1. Remove the eleven screws **D** attaching the rear panel on the back of the body and detach the rear panel.

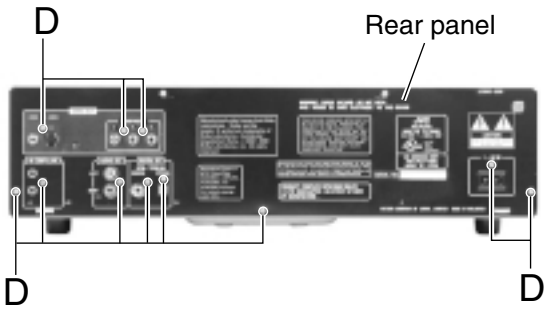


Fig.6

■ Removing the DVD changer mechanism assembly (See Fig.7)

・ Prior to performing the following procedure, remove the top cover and front panel assembly.

1. Remove the one screw **E**.
2. Disconnect the 9 pin wire from connector CN961 on the power supply board.
3. Disconnect the card wire from connector CN601 on the video board.
4. Disconnect the card wires from connector CN701 and CN702 on the system control board.
5. Remove the four screws **F** attaching the DVD changer mechanism assembly.

・ It is easy for removing the front panel assembly to remove the mechanism assembly though the mechanism assembly can be removed even in the state that the front panel assembly adheres.

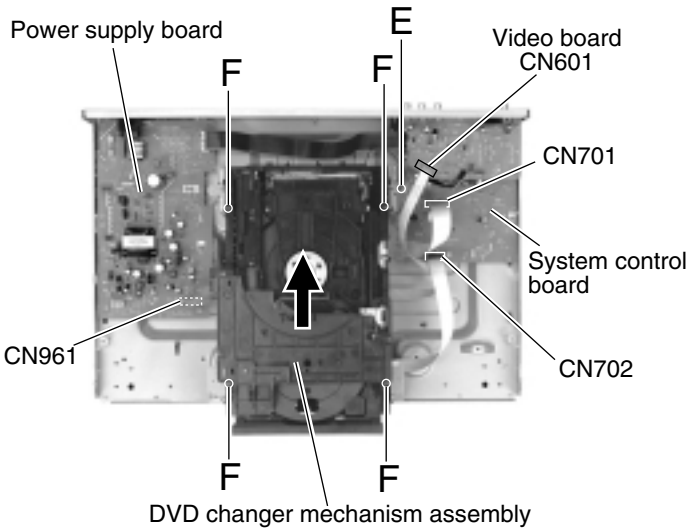


Fig.7

■ Removing the power supply board (See Fig.8 and 9)

・ Prior to performing the following procedure, remove the top cover.

1. Disconnect the wire from connector CN971 on the power supply board (The wire is extending from the front panel assembly).

2. Disconnect the 9 pin wire from connector CN961 on the power supply board (The wire is extending from the DVD changer mechanism assembly).

3. Disconnect the wire from connector CN951 and CN952 on the power supply board (The wire is extending from the system control board).

4. Remove the screw **D** attaching the AC jack on the rear panel.

5. Remove the two screws **G** attaching the power supply board and detach the power supply board.

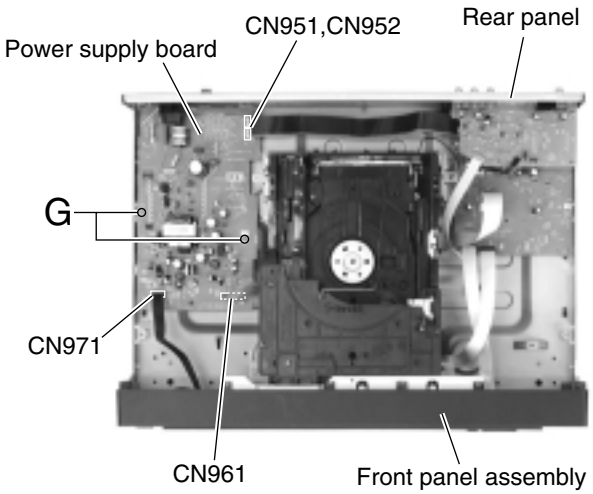


Fig.8

Fig.9

■ Removing the video board (See Fig.10 and 11)

- Prior to performing the following procedure, remove the top cover.

1. Disconnect the card wire from connector CN601 on the video board (The card wire is extending from the DVD changer mechanism assembly).

2. Disconnect the wire from connector CN704 on the system control board (The wire is extending from the video board).

3. Remove the three screws **D** attaching the video board on the rear panel. Pull out the video board from the rear panel.

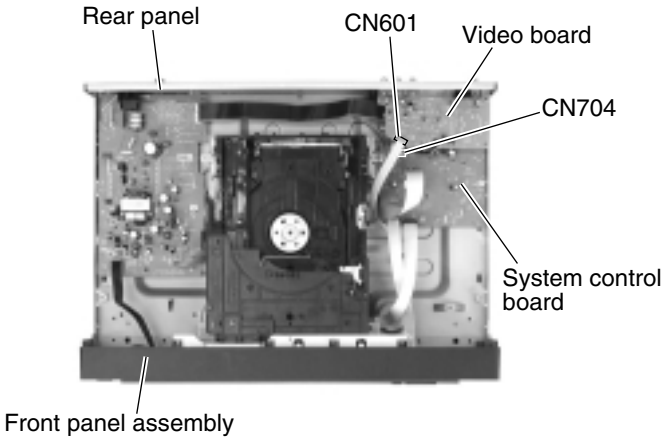


Fig.10

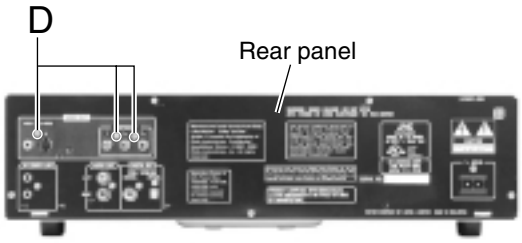


Fig.11

■ Removing the system control board (See Fig.12 and 13)

- Prior to performing the following procedure, remove the top cover.
- The system control board can be removed even if the video board is attached.

1. Disconnect the card wire from connector CN703 on the system control board (The card wire is extending from the front panel assembly).

2. Disconnect the card wire from connector CN701 and CN702 on the audio board (The card wires are extending from the DVD changer mechanism assembly).

3. Disconnect the wire from connector CN704 on the system control board (The wire is extending from the video board).

4. Disconnect the wire from connector CN951 and CN952 on the power supply board (The wire is extending from the system control board).

5. Remove the screw **H** attaching the system control board.

6. Remove the four screws **D** attaching the system control board on the rear panel. Pull out the system control board toward the front.

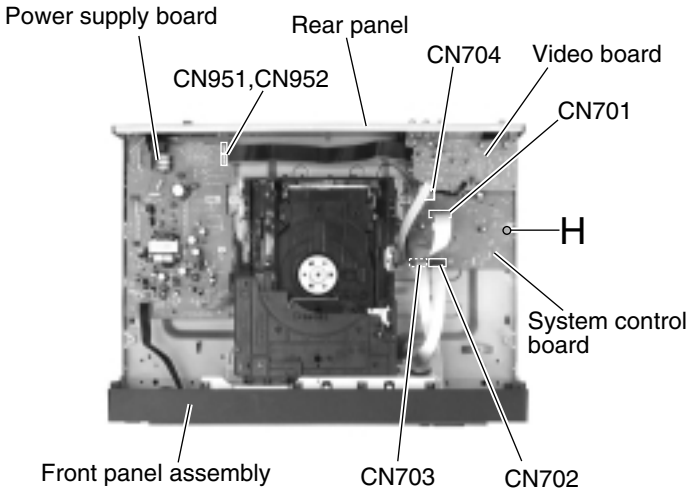


Fig.12

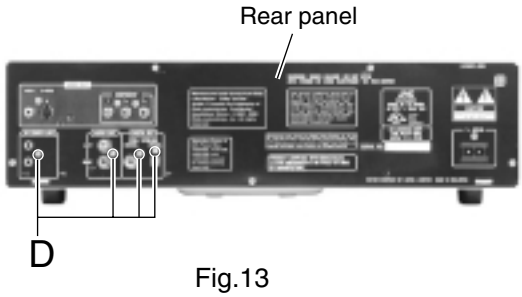


Fig.13

<Front panel assembly>

・Prior to performing the following procedure, remove the top cover and the front panel assembly.

■Removing the front board (See Fig.14 and 15)

1. Remove the two screws **I** on the back of the front panel assembly and remove the bracket from the front panel assembly.

2. Remove the seven screws **J** attaching the front board.

   If necessary, unsolder FW803 and disconnect the wire.

■Removing the STANDBY switch board (See Fig.16)

1. Remove the two screws **K** on the back of the front panel assembly.

   If necessary, unsolder FW803 and disconnect the wire.

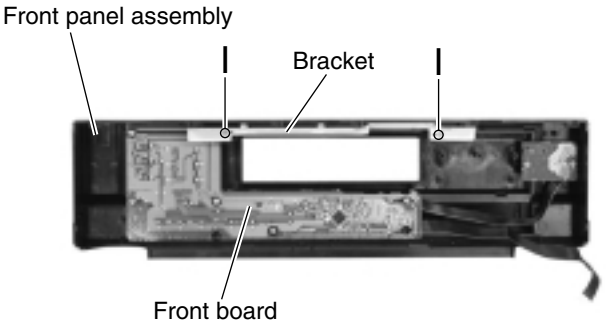


Fig.14

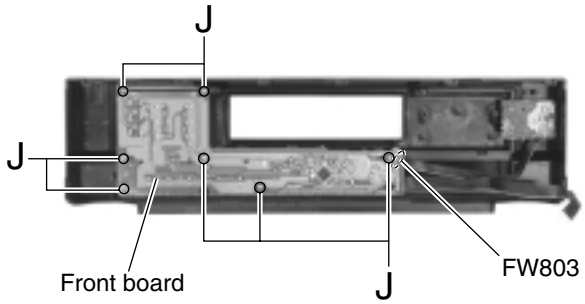


Fig.15

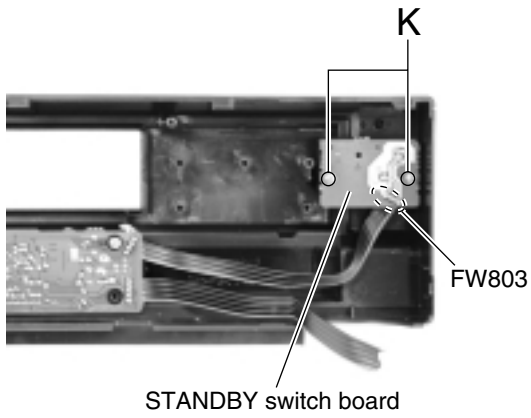


Fig.16

<DVD changer mechanism assembly>

・Prior to performing the following procedure, remove the top cover and the DVD changer mechanism assembly.

■Removing the traverse mechanism control board (See Fig.17)

1. Disconnect the card wire from connector CN101 on the traverse mechanism control board on the bottom of the DVD changer mechanism assembly.

2. Remove the screw L attaching the traverse mechanism control board. Release the three parts e, f and g and remove the traverse mechanism control board.

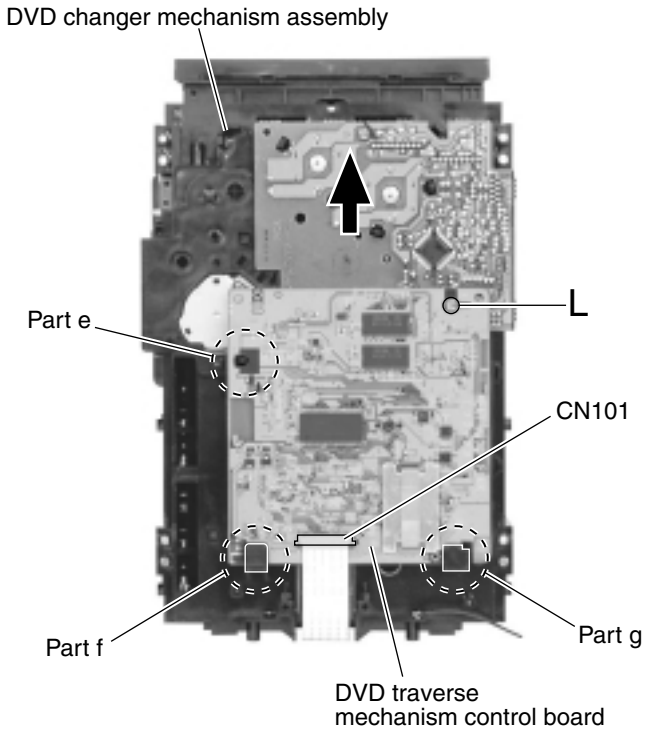


Fig.17

Ejecting the DVD (See Fig.18 and 19)

■When the DVD is set or the traverse mechanism is up.

※The DVD tray can not be ejected when the traverse mechanism is up.

■Bringing down the traverse mechanism as shown in the Fig.20

1. The motor pulley and the belt can be seen on the front side of the changer. Turn the motor pulley clockwise until the belt stops.

2. Pull the tray lock lever on the left side of the changer and draw the DVD tray.

3. Draw the DVD tray 1 to 3 as above.

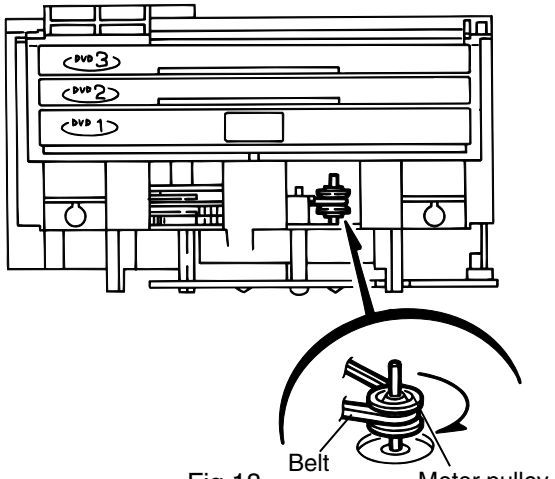


Fig.18

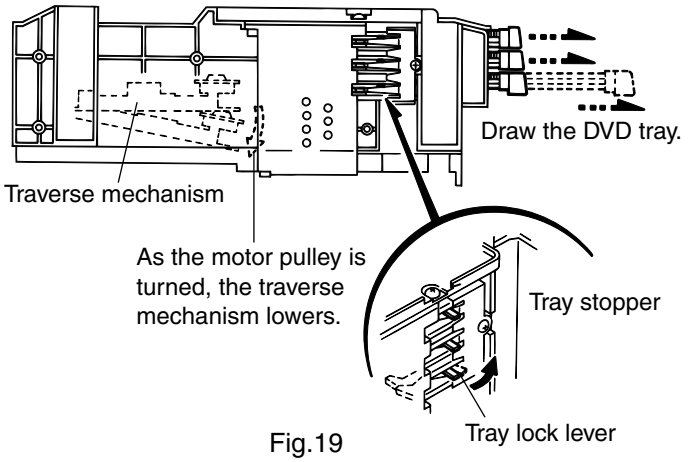

Draw the DVD tray.
Traverse mechanism
As the motor pulley is turned, the traverse mechanism lowers.
Tray stopper
Tray lock lever

Fig.19

<DVD Changer Mechanism Section>

■Removing the DVD mechanism board (See Fig.1)

1. Remove the DVD changer mechanism assembly.
2. From bottom side the DVD changer mechanism assembly, remove the one screw **A** retaining the DVD servo control board.
3. Disconnect the card wire from the connector CN101 on the DVD servo control board.
4. Disengage the one engagement **a** and two engagements **b** , remove the DVD servo control board.

ATTENTION !

The laser diode of pick-up might be destroyed by static electricity and set switch (S11) on the pick-up board on "SHORT" side, please before removing the card wire from connector (CN101).
Moreover, please set switch (S11) on "OPEN" side after assembling and inserting the card wire in connector (CN101) without fail at times.

Please refer to page 1-4 for a detailed content.

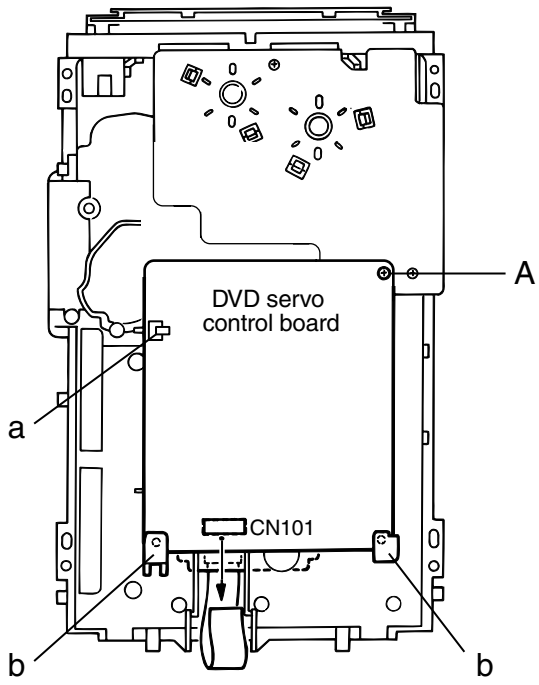


Fig.1

■Removing the DVD tray assembly (See Fig.2~4)

1. Remove the screw **B** retaining the Disc stopper (See Fig.3).
2. Remove the three screws **C** retaining the T.bracket (See Fig.3).
3. From the clamper base section **c**, remove both of the edges fixing the rod(See Fig.2 and 3).
4. Remove the screw **D** retaining the clamper assembly (See Fig.3).
5. From the left side face of the chassis assembly, remove the one screw **E** retaining both of the return spring and lock lever(See Fig. 4).
6. By removing the pawl at the section **d** fixing the return spring, dismount the return spring(See Fig.4).
7. Remove the three lock levers(See Fig.4).

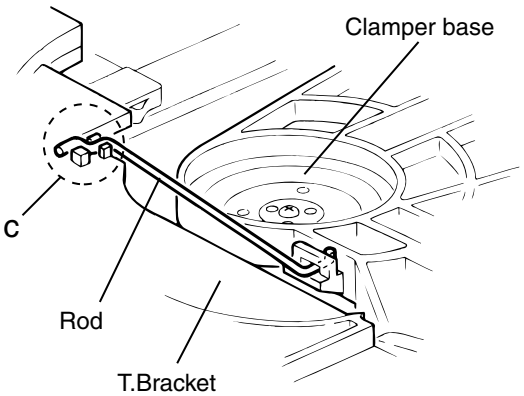


Fig.2

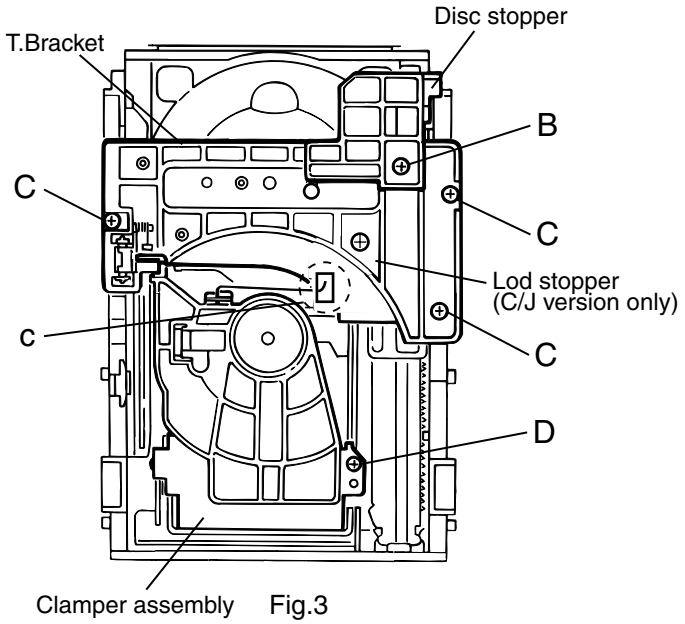


Fig.3

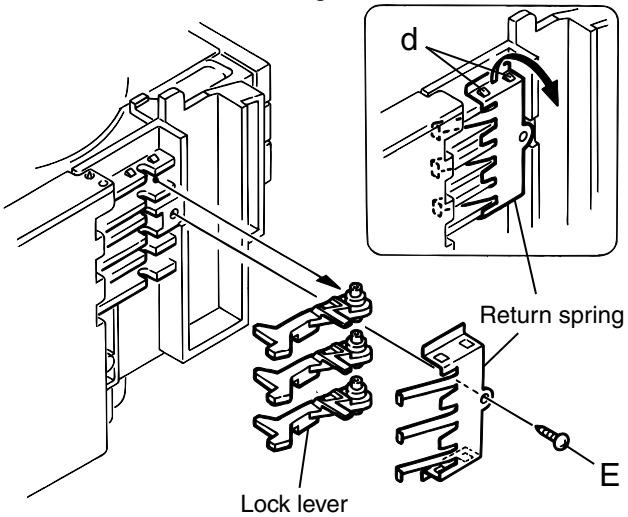


Fig.4

8. Check whether the lifter unit stopper has been caught into the hole at the section **e** of DVD tray assembly as shown in Fig.5.
9. Make sure that the driver unit elevator is positioned as shown in Fig.6 from to the second or fifth hole on the left side face of the DVD Traverse mechanism assembly.

[Caution] In case the driver unit elevator is not at above position, set the elevator to the position as shown in Fig.7 by manually turning the pulley gear as shown in Fig.8.

10. Manually turn the motor pulley in the clockwise direction until the lifter unit stopper is lowered from the section **e** of DVD tray assembly(See Fig.8).
11. Pull out all of the three stages of DVD tray assembly in the arrow direction **f** until these stages stop (See Fig.6).
12. At the position where the DVD tray assembly has stopped, pull out the DVD tray assembly while pressing the two pawls **g** and **g'** on the back side of DVD tray assembly(See Fig.9). In this case, it is easy to pull out the assembly when it is pulled out first from the stage DVD tray assembly.

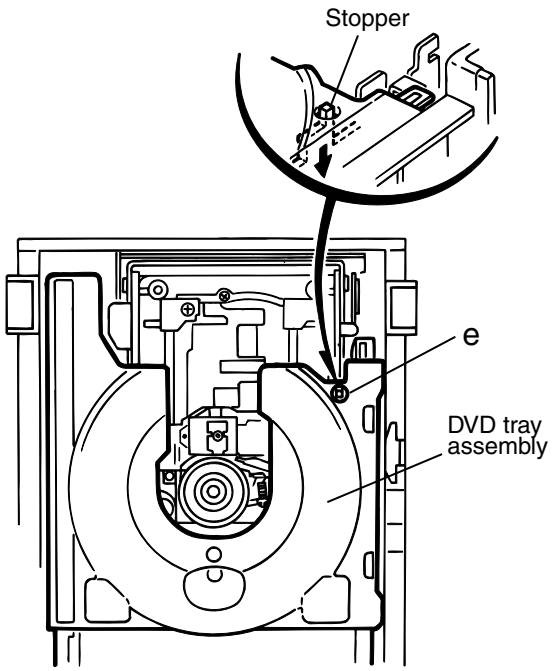


Fig.5

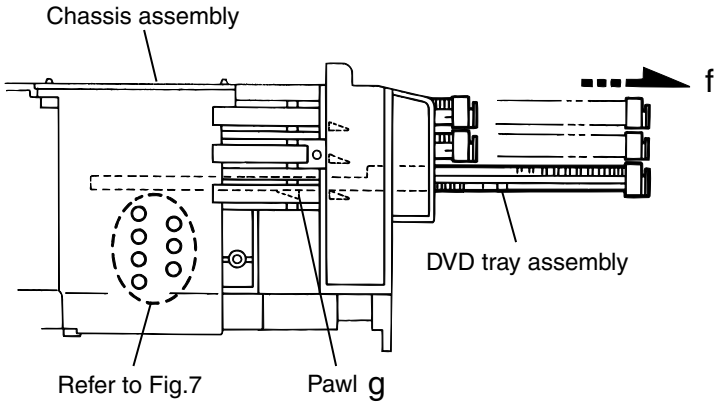


Fig.6

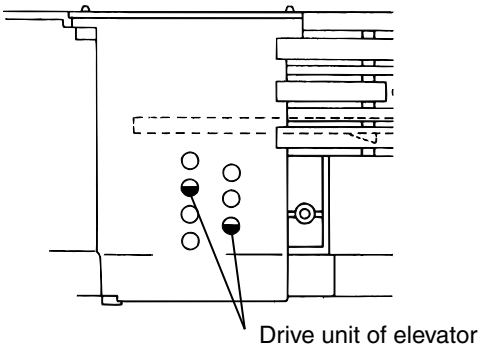


Fig.7

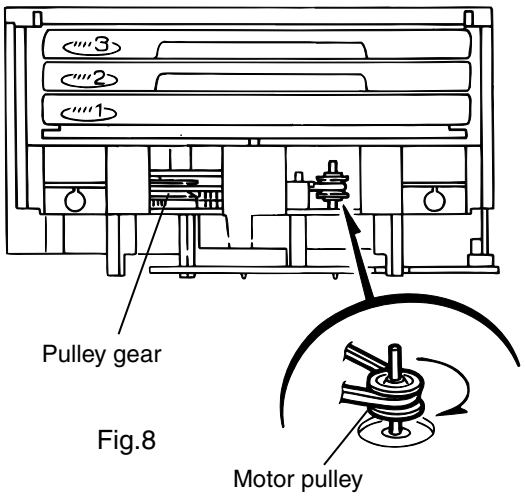


Fig.8

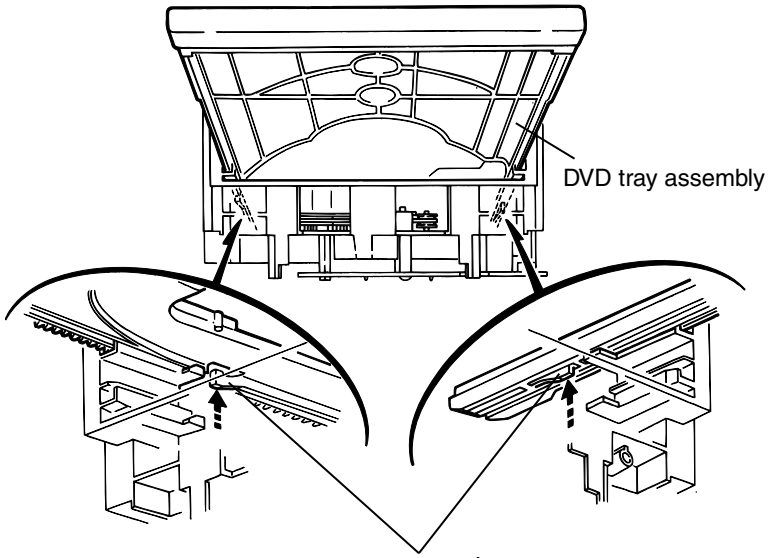


Fig.9

■ Removing the DVD mechanism assembly(See Fig.10)

1. While turning the cams R1 and R2 assembly in the arrow direction **h** , align the shaft **i** of the DVD mechanism assembly to the position shown in Fig.10.
2. Remove the four screw **F** retaining the DVD mechanism assembly.

■ Removing the DVD traverse mechanism assembly (See Fig.11 and 12)

1. For dismounting only the DVD mechanism without removing the DVD mechanism assembly, align the shaft **j** of the DVD mechanism assembly to the position shown Fig.11 while turning the cam R1 and R2 assembly in the arrow direction **k**.
2. Remove the two screws **G** raising the DVD mechanism assembly.
3. Remove the DVD traverse mechanism assembly in the arrow direction **l** from the lifter unit (See Fig. 12)

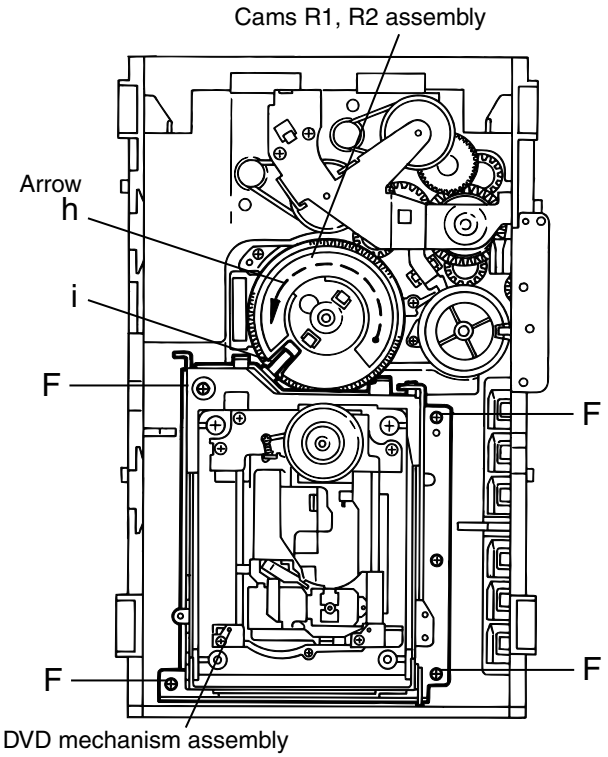


Fig.10

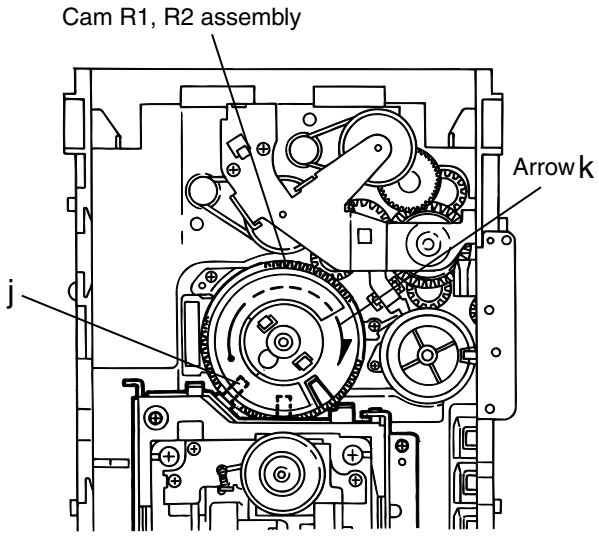


Fig.11

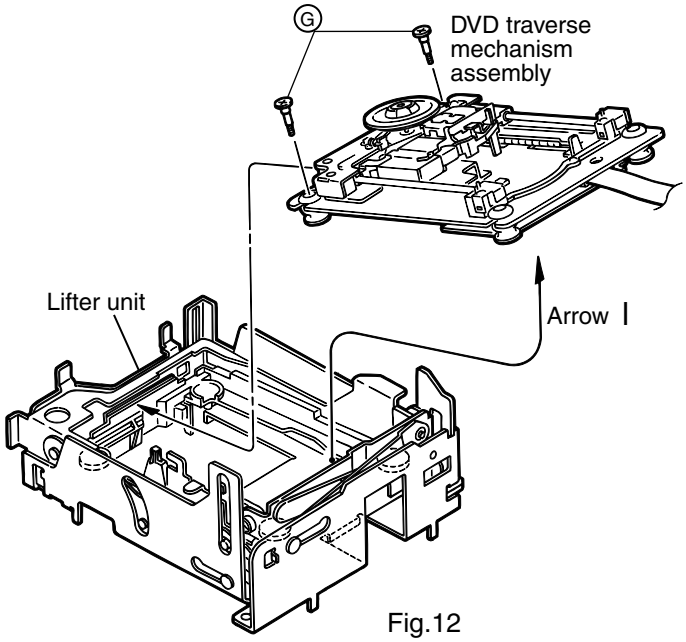


Fig.12

■ Removing the mechanism control board (See Fig.14, 15)

1. Absorb the four soldered positions **m** of the right and left motors with a soldering absorber(See Fig.14).
2. Remove the two screws **H** retaining the mechanism control board(See Fig.14).
3. Remove the two screws **I** retaining the tray select switch board(See Fig.15).

■ Removing the cam unit (See Fig.15 ~ 18)

1. Remove the DVD mechanism assembly.
2. While turning the cam gear **L**, align the pawl **n** position of the drive unit to the notch position(Fig.15) on the cam gear **L**.
3. Pull out the drive unit and cylinder gear(See Fig.17).
4. While turning the cam gear **L**, align the pawl **o** position of the select lever to the notch position(Fig.18) on the cam gear **L**.
5. Remove the four screws **J** retaining the cam unit(cam gear **L** and cams R1/R2 assembly)(See Fig.18).

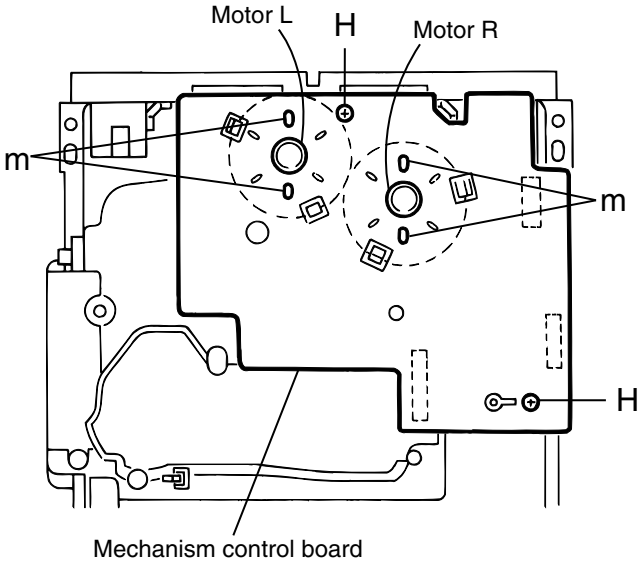


Fig.14

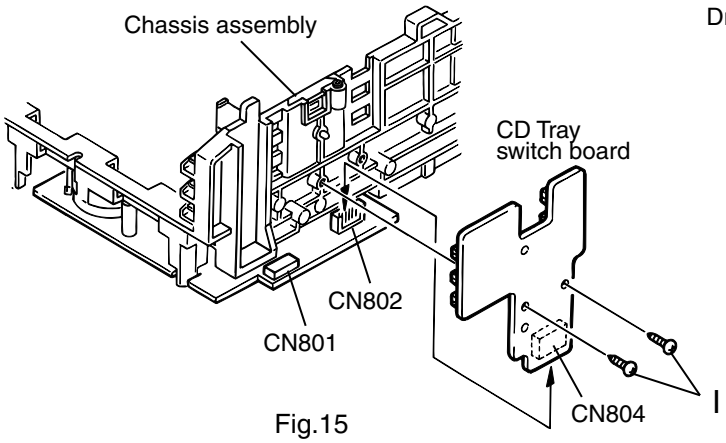


Fig.15

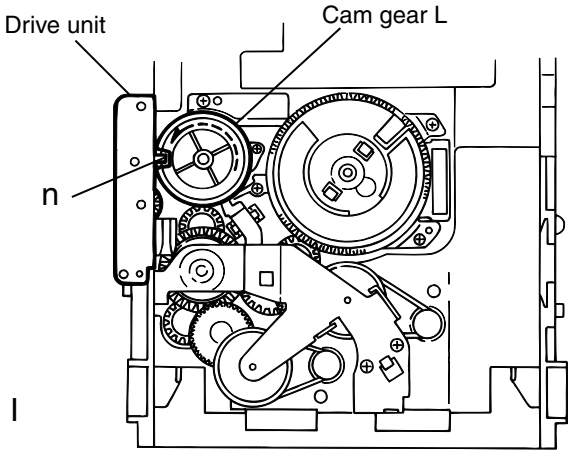


Fig.16

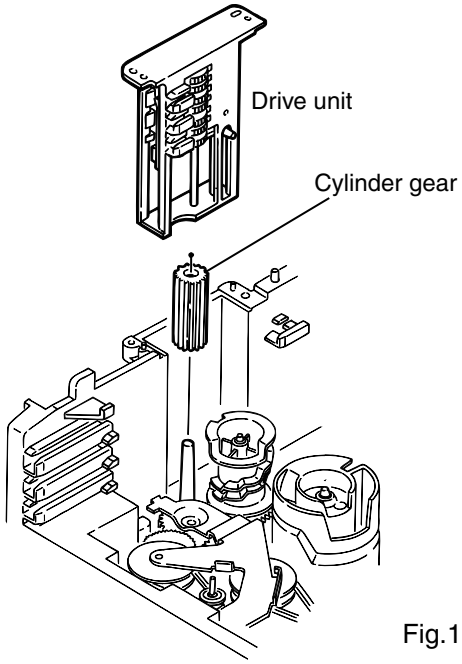


Fig.17

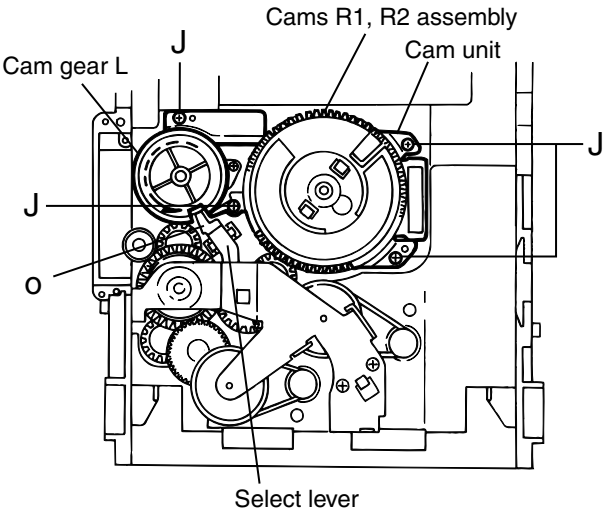


Fig.18

■ Removing the actuator motor and belt (See Fig.19～22)

1. Remove the two screws **K** retaining the gear bracket (See Fig.19).
2. While pressing the pawl **p** fixing the gear bracket in the arrow direction, remove the gear bracket (See Fig.19).
3. From the notch **q** section on the chassis assembly fixing the edge of gear bracket, remove and take out the gear bracket(See Fig. 20).
4. Remove the belts respectively from the right and left actuator motor pulleys and pulley gears(See Fig. 19).
5. After turning over the chassis assembly, remove the actuator motor while spreading the four pawls **r** fixing the right and left actuator motors in the arrow direction(See Fig. 21).

[Note] When the chassis assembly is turned over under the conditions wherein the gear bracket and belt have been removed, then the pulley gear as well as the gear, etc. constituting the gear unit can possibly be separated to pieces. In such a case, assemble these parts by referring to the assembly and configuration diagram in Fig. 22.

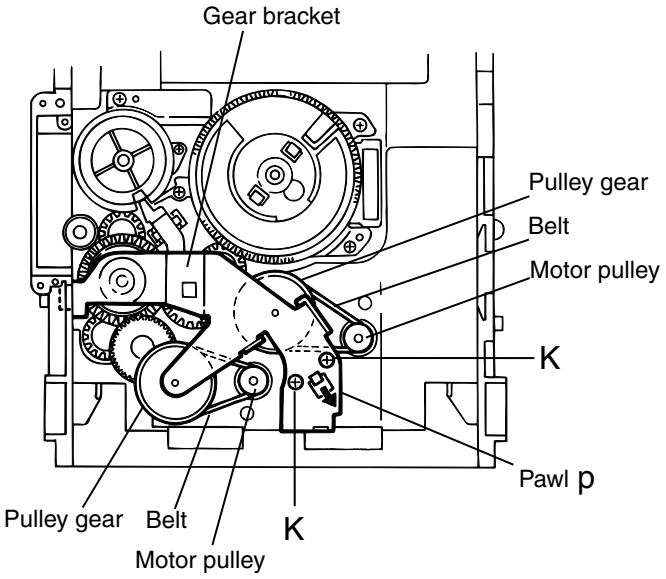


Fig.19

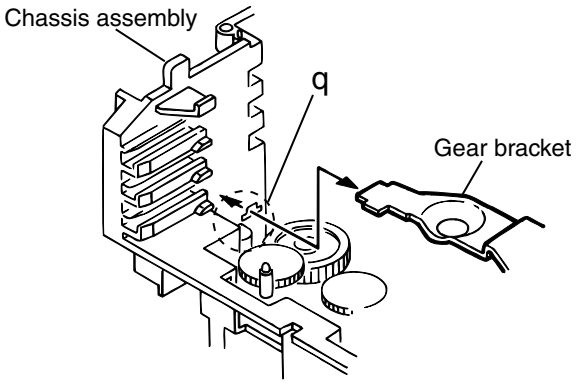


Fig.20

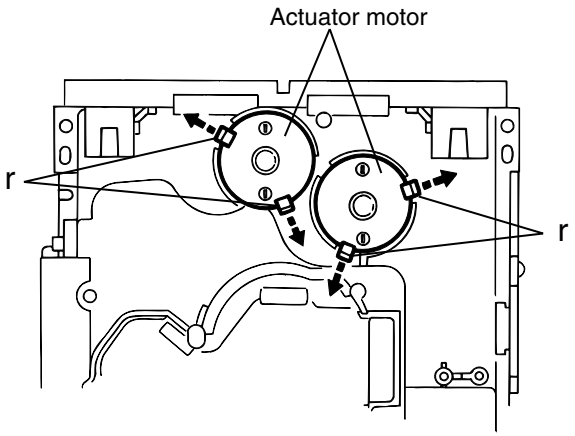


Fig.21

Assembly and Configuration Diagram

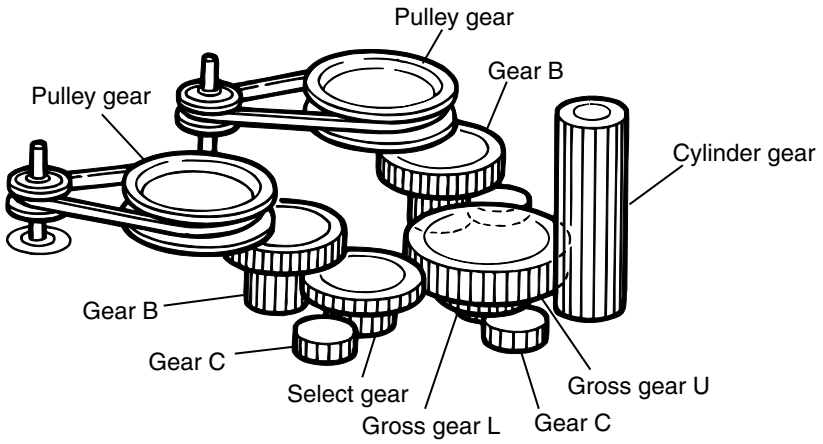


Fig.22

■ Removing the cams R1/R2 assembly and cam gear L (See Fig.23)

1. Remove the slit washer fixing the cams R1 and R2 assembly.
2. By removing the two pawls **s** fixing the cam R1, separate R2 from R1.
3. Remove the slit washer fixing the cam gear **L**.
4. Pull out the cam gear **L** from the C.G. base assembly.

■ Removing the C.G. base assembly (See Fig.23 and 24)

Remove the three screws **L** retaining the C.G. base assembly.

[Caution] To reassemble the cylinder gear, etc.with the cam unit (cam gear and cams R1/R2 assembly), gear unit and drive unit, align the position of the pawl **n** on the drive unit to that of the notch on the cam gear **L**. Then, make sure that the gear unit is engaged by turning the cam gear **L** (See Fig. 24).

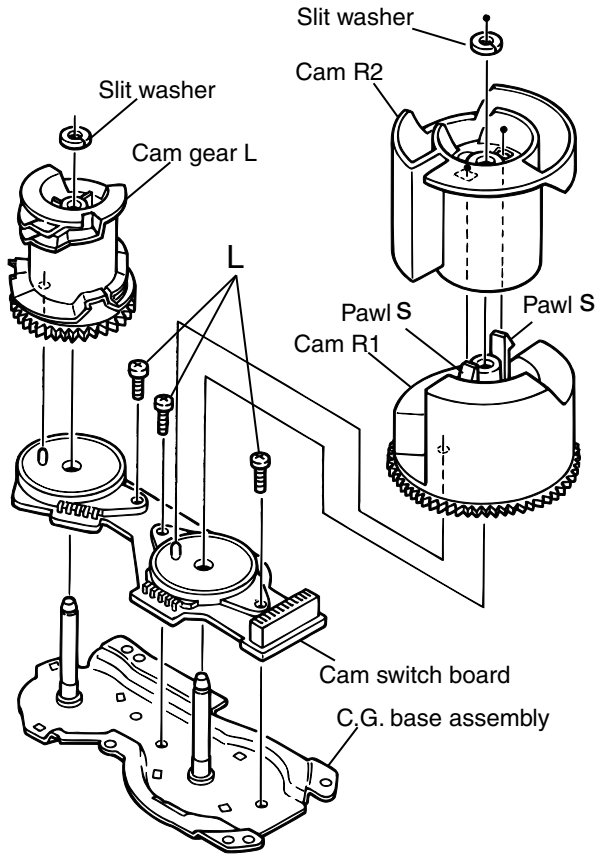


Fig.23

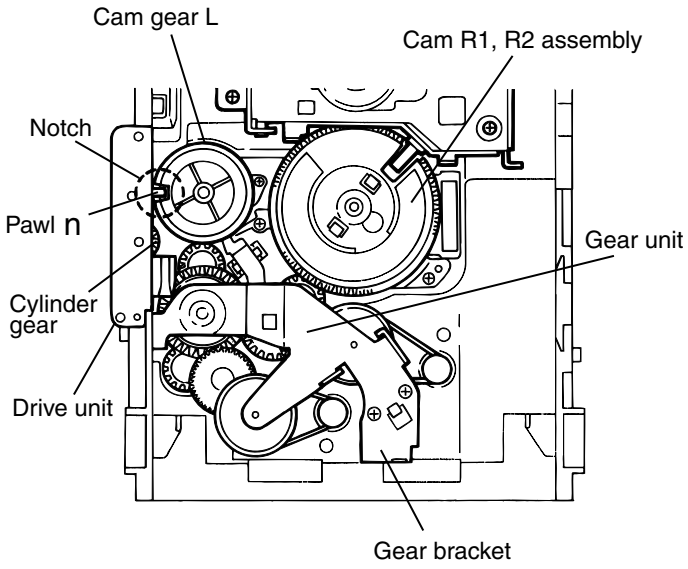


Fig.24

< DVD Traverse mechanism section>

■ Removing the pickup (See Fig.1 to 5)

1. Solder soldering **a** on the flexible board next to the pickup unit.

2. From the bottom of the traverse mechanism unit, disconnect the flexible wire from CN12 on the pickup board.

ATTENTION

The laser diode of the pick-up might be destroyed by static electricity, and solder with part a, please before extracting a flexible wire from connector (CN12). Moreover, please remove solder in part a after inserting a flexible wire in connector (CN12).
Please refer to page 1-4 for a detailed content.

3. Remove the screw **A** attaching the shaft stopper (R) on the upper side of the traverse mechanism unit. Pull the side of the shaft stopper (R) outward to release the joint **b** and remove it upward. Remove the skew spring at the same time.

4. Move the shaft in the direction of the arrow to release it from the part **c**.

5. Release the joint **d** with the shaft and remove the pickup with the shaft.

6. Pull out the shaft.

7. Remove the screw **B** attaching the switch actuator.

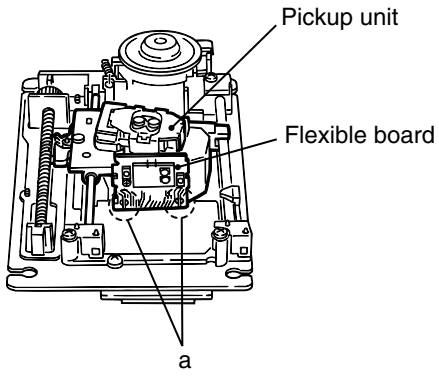


Fig.1

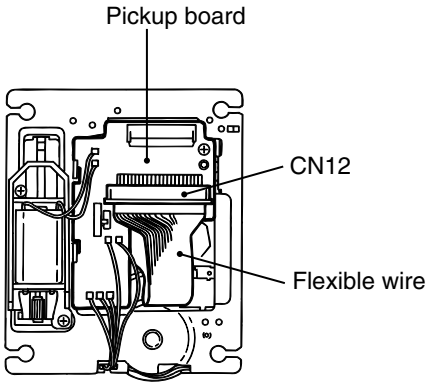


Fig.2

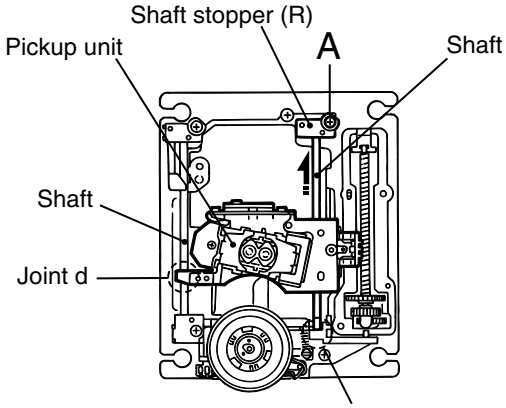


Fig.3

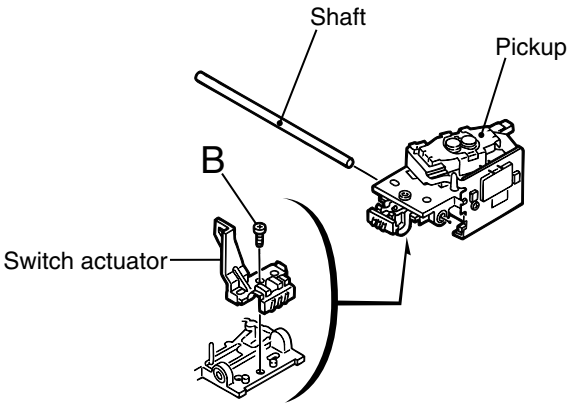


Fig.5

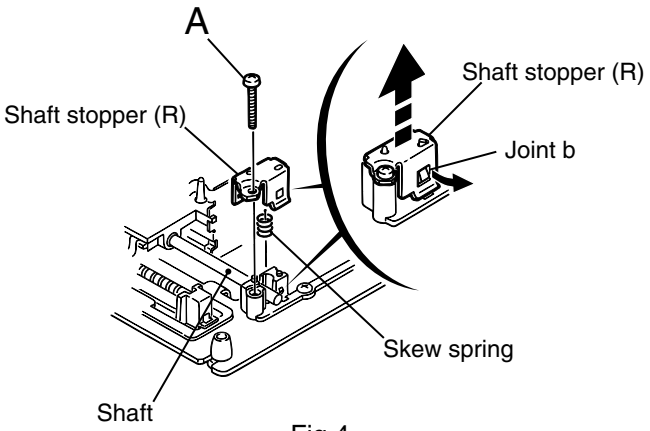


Fig.4

■Removing the pickup board
(See Fig.1 and 6)

1. Solder soldering **a** on the flexible board next to the pickup unit.

2. From the bottom of the traverse mechanism unit, disconnect the flexible wire from CN12 on the pickup board.

ATTENTION
The laser diode of the pick-up might be destroyed by static electricity, and solder with part a, please before extracting a flexible wire from connector (CN12). Moreover, please remove solder in part a after inserting a flexible wire in connector (CN12).
Please refer to page 1-4 for a detailed content.

3. Unsolder soldering **e**, **f** and **g** of each harness on the pickup board.

4. Remove the screw **C** attaching the pickup board and release the two joints **h**.

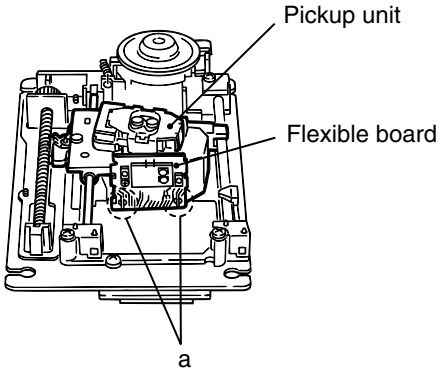


Fig.1

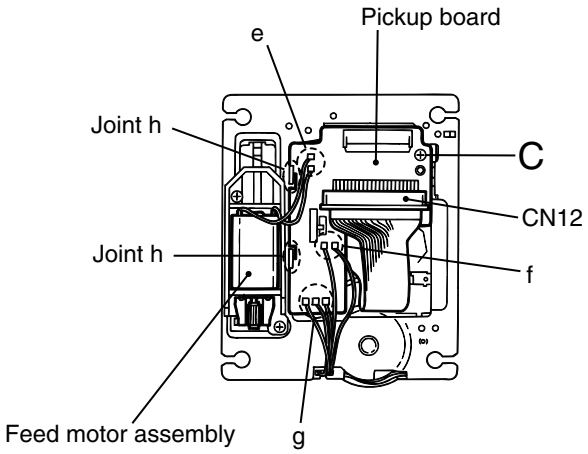


Fig.6

■Removing the feed motor assembly
(See Fig.1, 6 and 7)

1. Solder soldering **a** on the flexible board next to the pickup unit.

2. From the bottom of the traverse mechanism unit, disconnect the flexible wire from CN12 on the pickup board.

ATTENTION
The laser diode of the pick-up might be destroyed by static electricity, and solder with part a, please before extracting a flexible wire from connector (CN12). Moreover, please remove solder in part a after inserting a flexible wire in connector (CN12).
Please refer to page 1-4 for a detailed content.

3. Unsolder soldering **e** of the motor harness on the pickup board.

4. Remove the two screws **D** attaching the feed motor assembly and remove the thrust spring. Move the feed motor assembly in the direction of the arrow to pull it out from the feed holder.

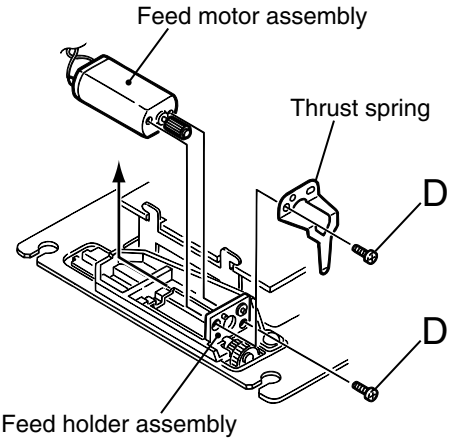


Fig.7

■ Removing the turn table assembly (See Fig.1, 6, 8 and 9)

1. Solder soldering **a** on the flexible board next to the pickup unit.

2. From the bottom of the traverse mechanism unit, disconnect the flexible wire from CN12 on the pickup board.

ATTENTION

The laser diode of the pick-up might be destroyed by static electricity, and solder with part a, please before extracting a flexible wire from connector (CN12). Moreover, please remove solder in part a after inserting a flexible wire in connector (CN12).
Please refer to page 1-4 for a detailed content.

3. Unsolder soldering **f** and **g** of the harness extending from the turn table assembly to the pickup board.

4. Remove the screw **E** attaching the shaft stopper (F) on the upper side of the traverse mechanism unit. Pull the side of the shaft stopper (F) outward to release the joint **i** and remove it upward. Remove the spring at the same time.

5. Remove the screw **F** attaching the turn table assembly.

6. Move the turn table assembly outward and pull out from the shaft. Then remove it from the base chassis.

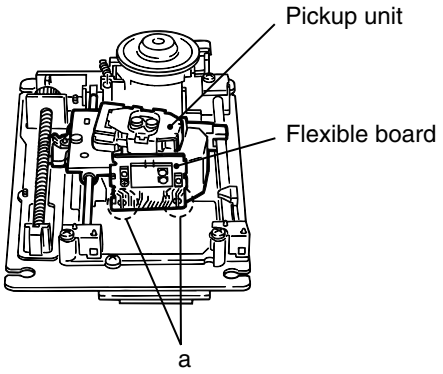


Fig.1

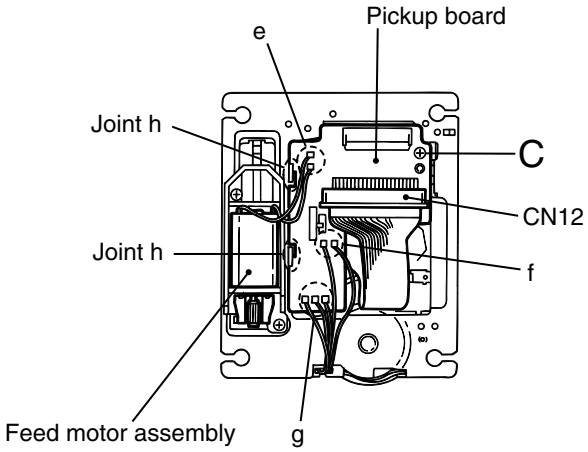


Fig.6

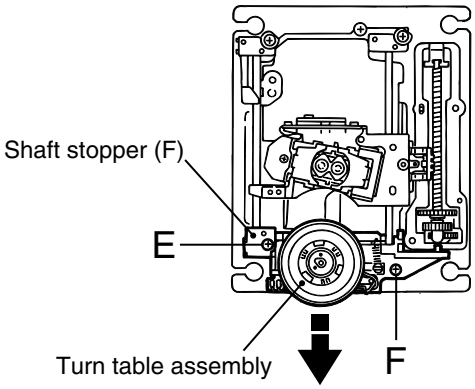


Fig.8

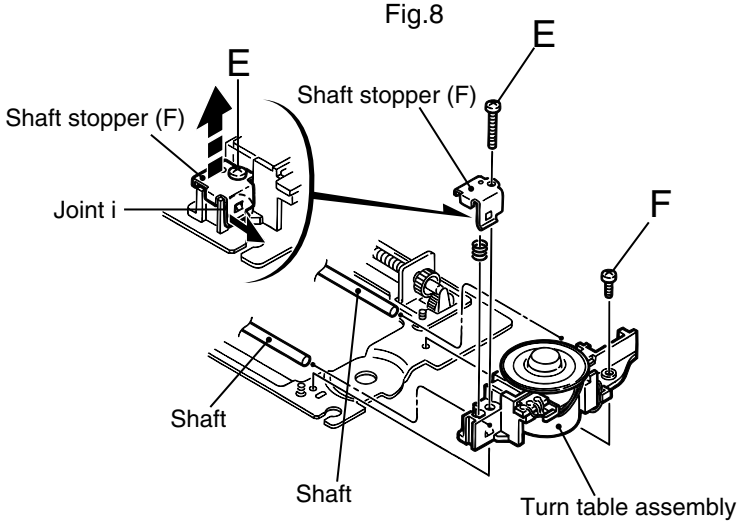


Fig.9

Adjustment method

(1) Initialization method

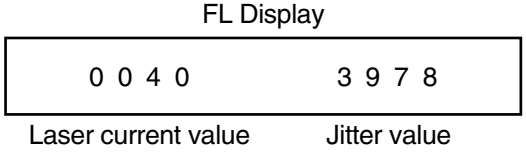
If microprocessor (IC401,IC402,IC403) or pick-up is replaces, initialize the DVD player in the following matter

1)Take out the disc and close the tray.
2)Unplug the power plug.
3)Insert power plug into outlet while pressing both PLAY button and DISC 1 OPEN/CLOSE button.
4)FL Display indicate "tESt ＊＊ ¥. ＊＊:Version, ¥Region code
5)Press 3D-PHONIC key button of remote controller. and EEPROM initialize start.
6)When indicate "V.REPLACE" on the display, initialize finishes.
7)The power is turned OFF, and Unplug the power plug.

(2) Display of "Laser current value" and "Jitter value"

"Laser current value" and "Jitter value" are displayed on the FL display by the undermentioned method. Please refer to the failure diagnosis.

1)Take out the disc and close the tray.
2)Unplug the power plug.
3)Insert power plug into outlet while pressing both PLAY button and DISC 1 OPEN/CLOSE button.
4)FL Display indicate "tESt ＊＊ ¥. ＊＊:Version, ¥Region code
5)Press the "OPEN/CLOSE" button to move the tray outward.
Put the test disc (VT-501) on the tray and press "OPEN/CLOSE" button.
The tray should move inward (Note:Don't push to close the tray directly by hand etc.)
6)Press the "PLAY" button.
7)The laser current value and the jitter value is displayed on the FL indicator as follows.



* The test mode is canceled when the power is turned off.

■ For Laser current value

The laser current value becomes 40mA for the above-mentioned.
Becomes a test mode by doing above-mentioned procedure 1) - 4). Afterwards, the laser current value can be switched by pushing the key to remote control without turning on the disk.

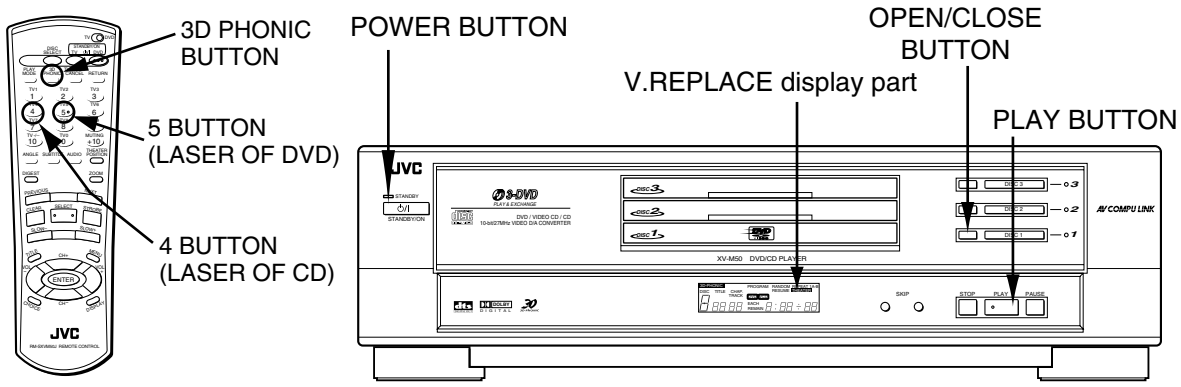
Remote control "4" key --- Laser of CD
Remote control "5" key --- Laser of DVD

*Returns to a usual test mode by the thing to push the stop button of remote control.

If the laser current value is 64mA or less, it is roughly good. There is a possibility to which pick-up is deteriorated, and exchange pick-up, please when there are 65mA or more laser current value.

■ For Jitter value

The jitter value is displayed by the hexadecimal number and refer to the conversion table of following,please.
If the indication value is 11% or less, it can be judged by this simple checking method that the signal read precision of the set is satisfactory.
Before using the TEST disc VT-501, careful check it if there is neither damage nor dirt on the read surface.



■ Jitter value

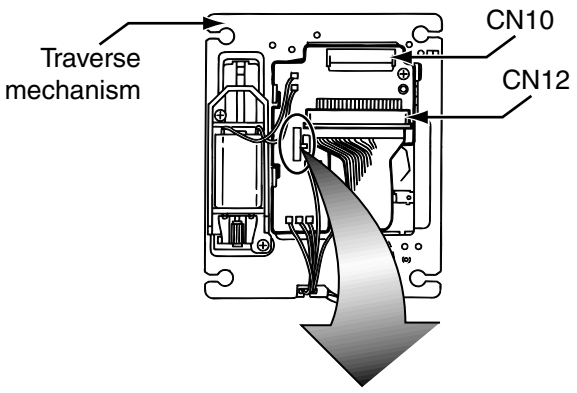
FL display	Conversion value(&)	FL display	Conversion value(&)
3818	4.7	3998	7.6
3828	4.8	39A8	7.7
3838	4.9	39B8	7.8
3848	5.1	39C8	7.9
3858	5.2	39D8	8.1
3868	5.3	39E8	8.2
3878	5.4	39F8	8.3
3888	5.5	3A18	8.5
3898	5.7	3A28	8.7
38A8	5.8	3A38	8.8
38b8	5.9	3A48	8.9
38c8	6.0	3A58	9.0
38d8	6.1	3A68	9.1
38E8	6.3	3A78	9.3
38F8	6.4	3A88	9.4
3918	6.6	3A98	9.5
3928	6.7	3AA8	9.6
3938	6.9	3AB8	9.7
3948	7.0	3AC8	9.9
3958	7.1	3AD8	10.0
3968	7.2	3AE8	10.1
3978	7.3	3AF8	10.2
3988	7.5		

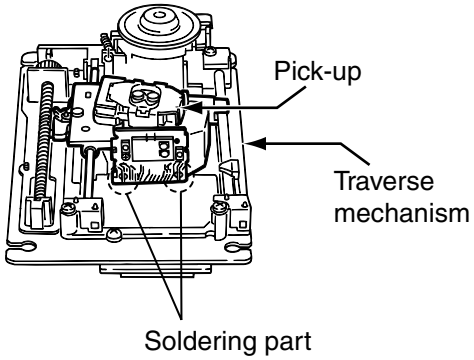
FL display	Conversion value(&)	FL display	Conversion value(&)
3B18	10.5	3C98	13.3
3B28	10.6	3CA8	13.5
3B38	10.7	3CB8	13.6
3B48	10.8	3CC8	13.7
3B58	10.9	3CD8	13.8
3B68	11.1	3CE8	13.9
3B78	11.2	3CF8	14.1
3B88	11.3	3D18	14.3
3B98	11.4	3D28	14.4
3BA8	11.5	3D38	14.5
3BB8	11.7	3D48	14.7
3BC8	11.8	3D58	14.8
3BD8	11.9	3D68	14.9
3BE8	12.0	3D78	15.0
3BF8	12.1	3D88	15.1
3C18	12.4	3D98	15.3
3C28	12.5	3DA8	15.4
3C38	12.7	3DB8	15.5
3C48	12.7	3DC8	15.6
3C58	12.9	3DD8	15.7
3C68	13.0	3DE8	15.9
3C78	13.1	3DF8	16.0
3C88	13.2		

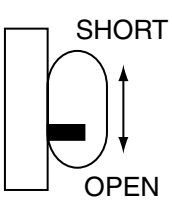
When replacing a pickup etc., execute the following adjustments:

Pickup replacement

1. When removing the traverse mechanism from the changer mechanism unit, move the pickup to the innermost diameter of the disc and set switch (S11) on the pick-up board on "SHORT" side, please before removing the card wire from connector (CN10)
2. Take out the traverse mechanism.
3. First short-circuit the pickup circuit before removing the pickup. Then carry out the replacement.







Adjustment

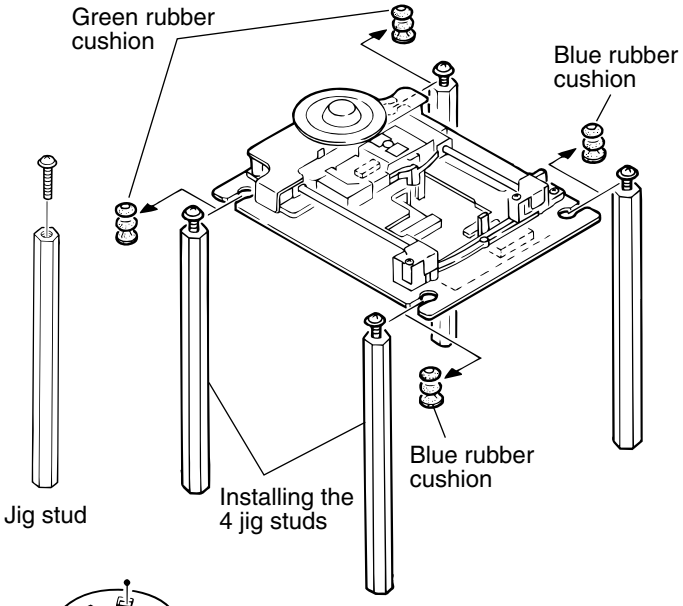
Jig setup

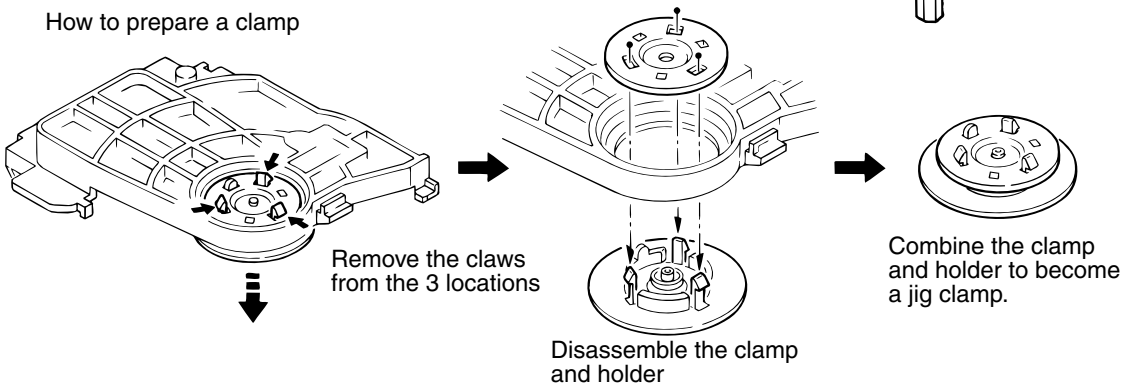
1. Remove the rubber cushion from each of the four corners of the traverse mechanism.
   (When installing be sure not to make a mistake with the cushion colors).
2. Install the jig stud.
3. Make a jig clamp. (Remove the clamp from the set and assemble it as shown in the diagram below.

Note:

How to handle the pickup

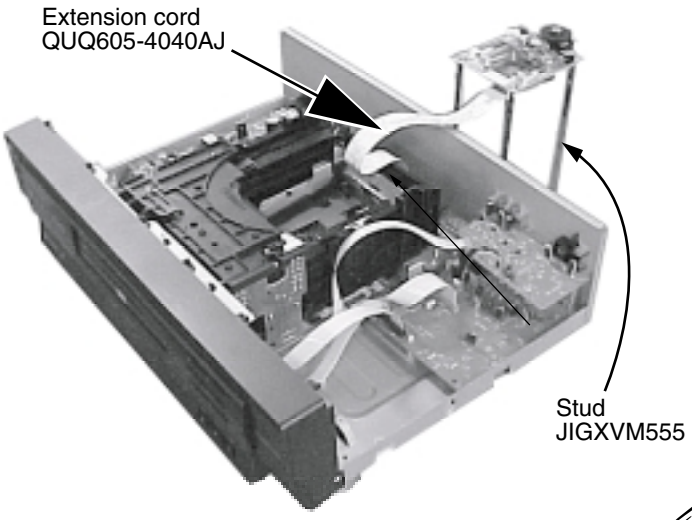
To protect the pickup from electro-static damage, make sure to hold it by the die-cast chassis (optical base). And make sure that pickup lens do not touch the top cover.




How to prepare a clamp
Remove the claws from the 3 locations
Disassemble the clamp and holder
Combine the clamp and holder to become a jig clamp.

Integrated wiring for adjustment

1. Place a board on top of the unit and put the changer on it. Then carry out the wiring of the main unit.
2. Connect a extension cable to the traverse mechanism for adjustment and then connect them to the changer.
3. Remove the solder of the short-circuited flexible wire. Then remove the short-circuited pin from the traverse mechanism
4. Connection is completed.



Adjustment preparation

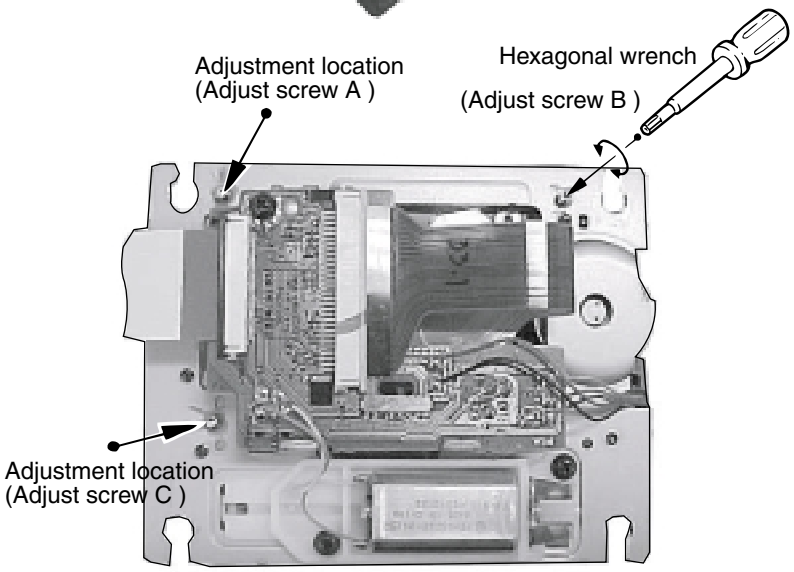
1. The 3 adjustment locations
2. 1.4 mm hexagonal wrench
3. Set the VT-501 or the VT502 test disc.

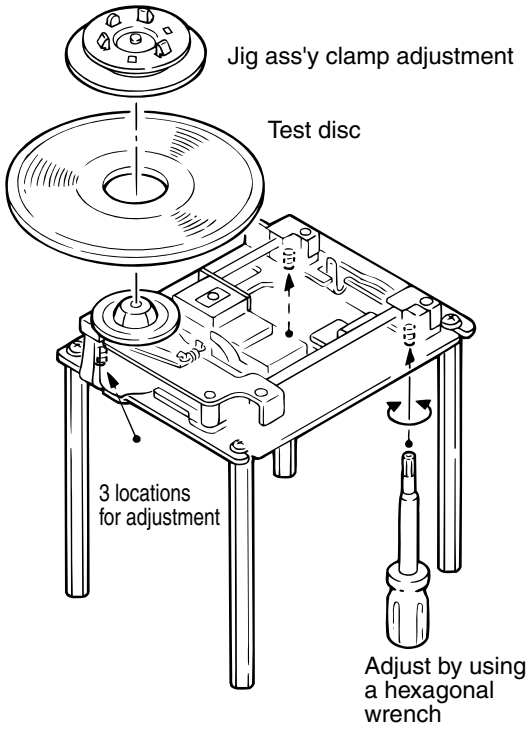
FL jitter display

1. Connect the power cable while pressing the ▲ (OPEN/CLOSE) button of DISC1 and ▷ (PLAY) button simultaneously.
   --- The DISC no. "tEStJI" is displayed on the FL indicator.
2. Press the 3D-PHONIC key button of remote controller to commence initialization.
3. When the key ▷ (PLAY) is pressed the jitter value is displayed.
4. Adjust the jitter value to minimum by using the adjust screw.

a). Turn the adjustment screw (A and B) clockwise half.
b). Return the adjustment screw (A and B) to former position.
c). Turn the adjustment screw (A and B) counterclockwise half.
d). Set the adjustment screw (A and B) to the position of best jitter at three positions.

Next, do it similar to the above-mentioned in adjustment screw A and C.

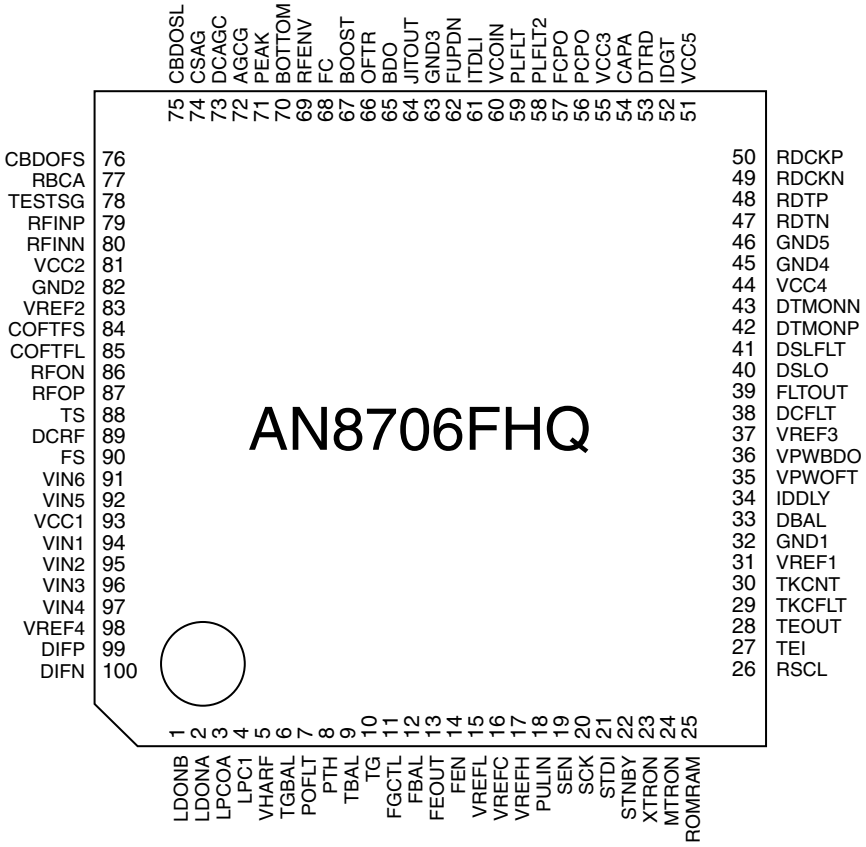




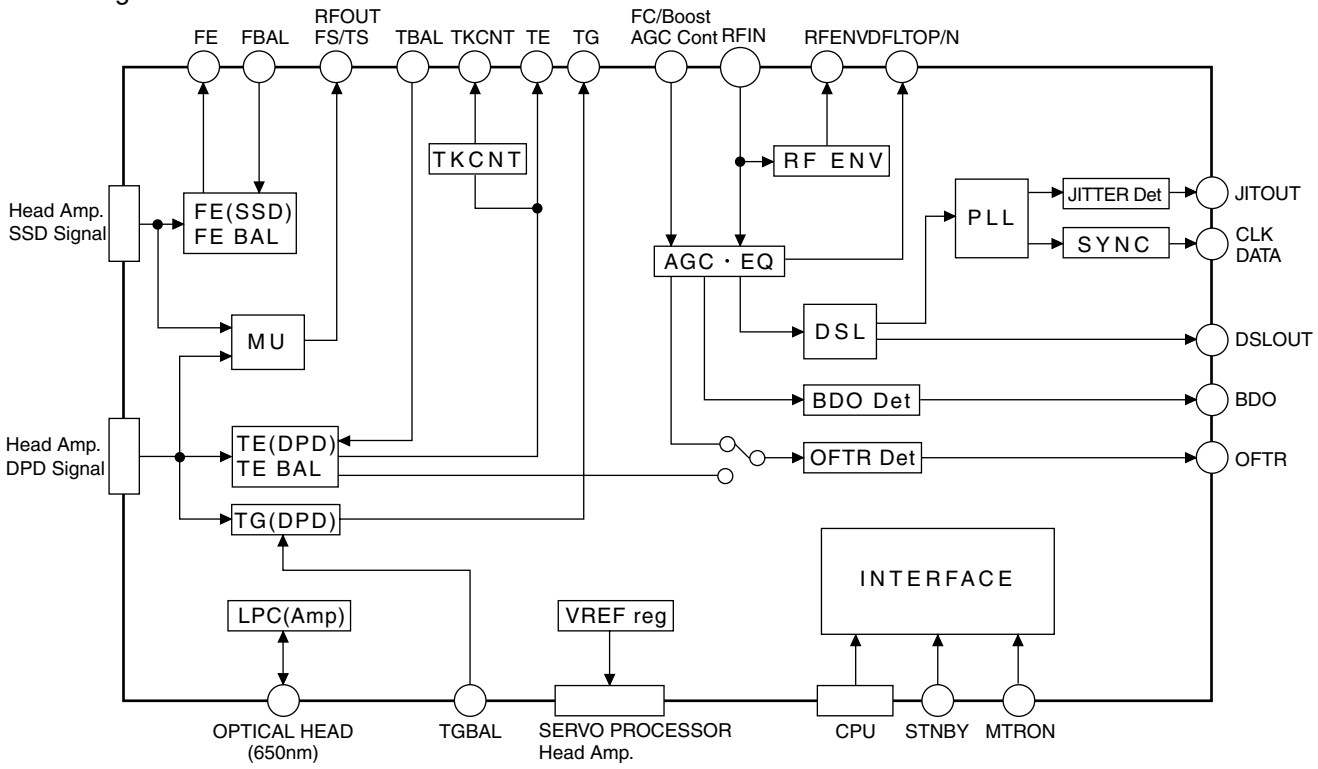
Description of major ICs

■ AN8706FHQ (IC101) : Front end processor

1.Pin layout



2.Block diagram



3.Pin function

AN8706FHQ (1/2)

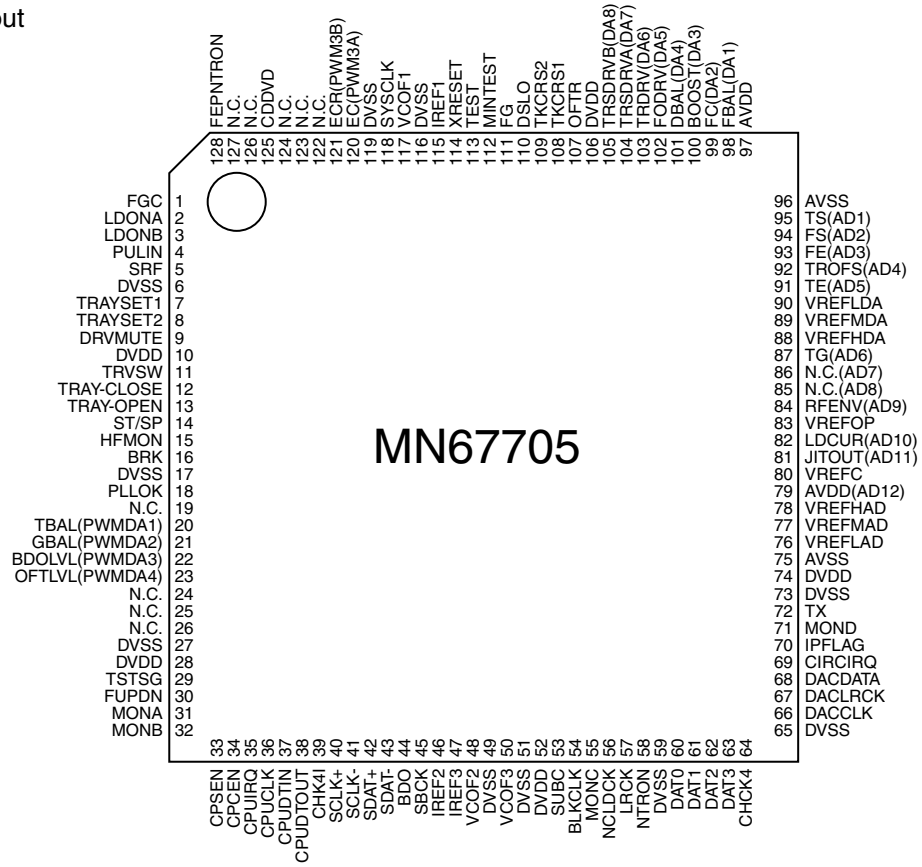
Pin No.	Symbol	I/O	Functions
1	LDONB	I	Laser ON (CD Head) terminal
2	LDONA	I	Laser ON (DVD Head) terminal
3	LPCOA	O	Laser drive output terminal
4	LPC1	I	Laser PIN input terminal
5	VHARF	O	VHALF voltage output terminal
6	TGBAL	I	Tangential phase balance control terminal
7	POFLT	O	Track detection Threshold value level terminal
8	PTH	I	Track detection Threshold value level terminal
9	TBAL	I	Tracking balance control terminal
10	TG	O	Tangential phase error signal output terminal
11	FGCTL	I	Focus amplifier Gain control terminal
12	FBAL	I	Focus balance control terminal
13	FEOUT	O	Focus error signal output terminal
14	FEN	I	Focus error output amplifier reversing input terminal
15	VREFL	O	VREFL voltage output terminal
16	VREFC	O	VREFC voltage output terminal
17	VREFH	O	VREFH voltage output terminal
18	PULIN	I	DSL,PLL drawing mode switch terminal
19	SEN	I	SEN(Cereal data input terminal)
20	SCK	I	SCK(Cereal data input terminal)
21	STDI	I	STDI(Cereal data input terminal)
22	STNBY	I	Standby mode control terminal
23	XTRON	I	Tracking OFF holding input terminal
24	MTRON	I	Monitor output ON/OFF switch terminal
25	ROMRAM	I	ROM･RAM switch terminal
26	RSCL	O	Standard current source terminal
27	TEI	I	Tracking error output amplifier reversing input terminal
28	TEOUT	O	Tracking error signal output terminal
29	TKCFLT	O	Track count detection filter terminal
30	TKCNT	O	Track count output terminal
31	VREF1	O	VREF1 voltage output terminal
32	GND1	O	Earth terminal 1
33	DBAL	I	Data slice offset adjustment terminal
34	IDDLY	I	Data slice delay adjustment terminal
35	VPWOFT	I	OFTR detection level setting terminal
36	VPWBDO	I	BDO detection level setting terminal
37	VREF3	O	VREF3 voltage output terminal
38	DCFLT	O	Capacity connection terminal for data slice input filter
39	FLTOUT	O	Filter amplifier output terminal
40	DSLO	O	Data slice single data output terminal
41	DSLFLT	O	Data slice time constant filter terminal
42	DTMONP	O	PLL differential motion 2 making to value edge signal moniter output (+)
43	DTMONN	O	PLL differential motion 2 making to value edge signal moniter output (-)
44	VCC4	I	Power terminal 4 (5V)
45	GND4	O	Earth terminal 4
46	GND5	O	Earth terminal 5
47	RDTN	O	PLL differential motion making to synchronization RF signal reversing output
48	RDTP	O	PLL differential motion making to synchronization RF signal rotation output
49	RDCKN	O	PLL differential motion making synchronization clock reversing output
50	RDCKP	O	PLL differential motion making synchronization clock rotation output

AN8706FHQ(2/2)

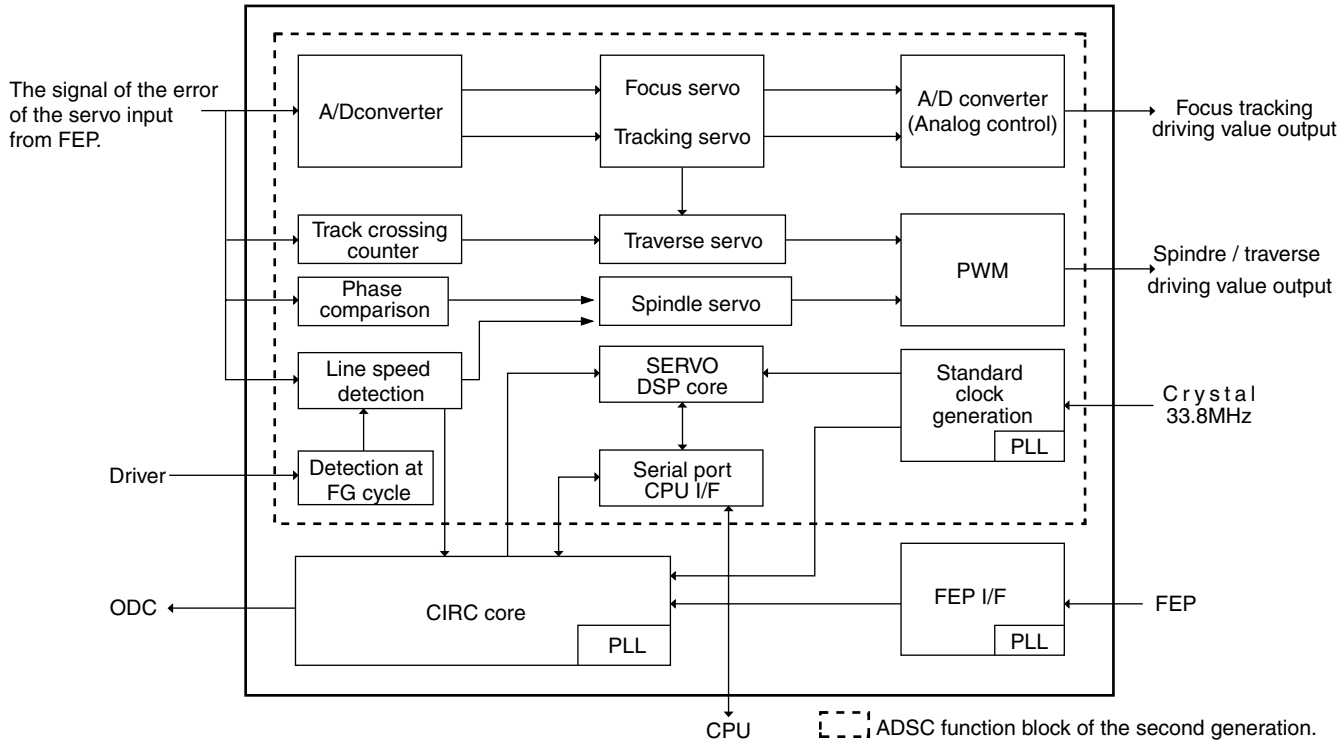
Pin No.	Symbol	I/O	Functions
51	VCC5	I	Power terminal 5 (3.3V)
52	IDGT	I	Data slice address part gate signal input terminal (For RAM)
53	DTRD	I	Data slice data read signal input terminal(For RAM)
54	CAPA	I	Data slice CAPA(Address)signal input terminal (For RAM)
55	VCC3	I	Power terminal 3 (5V)
56	PCPO	O	PLL phase gain set terminal
57	FCPO	O	PLL frequency gain set terminal
58	PLFLT2	O	PLL low-pass filter terminal
59	PLFLT	O	PLL high-pass filter terminal
60	VCOIN	I	PLL VCO input terminal
61	ITDLI	O	PLL jitter free current ripple removal filter terminal
62	FUPDN	I	PLL frequency control input terminal
63	GND3	O	Earth terminal 3
64	JITOUT	O	Detection signal output of jitter
65	BDO	O	BDO output terminal
66	OFTR	O	OFTR output terminal
67	BOOST	I	Boost control terminal for filter
68	FC	I	FC control terminal for filter
69	RFENV	O	RF envelope output terminal
70	BOTTOM	O	Bottom envelope detection filter terminal
71	PEAK	O	Peak envelope detection filter terminal
72	AGCG	O	AGC amplifier gain control terminal
73	DCAGC	O	AGC amplifier filter terminal
74	CSAG	O	Sag cancellation circuit filter terminal
75	CBDOSL	O	BDO detection capacitor terminal
76	CBDOFS	O	BDO detection capacitor terminal
77	RBCA	O	BCA detection level setting terminal
78	TESTSG	I	TEST signal input terminal
79	RFINP	I	RF signal positive input terminal
80	RFINN	I	RF signal negative input terminal
81	VCC2	I	Power terminal 2 (5V)
82	GND2	O	Earth terminal 2
83	VREF2	O	VREF2 voltage output terminal
84	COFTFS	O	OFTR detection capacitor terminal
85	COFTFL	O	OFTR detection capacitor terminal
86	RFON	O	RF signal output terminal N
87	RFOP	O	RF signal output terminal P
88	TS	O	Full adder amplifier (DVD) output terminal
89	DCRF	O	Full adder amplifier capacitor terminal
90	FS	O	Full adder amplifier (CD) output terminal
91	VIN6	I	Focus input of external division into two terminal
92	VIN5	I	Focus input of external division into two terminal
93	VCC1	I	Power terminal 1 (5V)
94	VIN1	I	External division into four (DVD/CD) RF input terminal 1
95	VIN2	I	External division into four (DVD/CD) RF input terminal 2
96	VIN3	I	External division into four (DVD/CD) RF input terminal 3
97	VIN4	I	External division into four (DVD/CD) RF input terminal 4
98	VREF4	O	VREF4 voltage output terminal
99	DIFP	O	RF signal (RAM) output terminal P
100	DIFN	O	RF signal (RAM) output terminal N

■ MN67705EA (IC201) : Digital servo controller

1.Terminal layout



2.Block diagram



3.Pin function

MN67705EA (1/3)

Pin No.	Symbol	I/O	Function
1	FGC	0	H fixation
2	LDONA	O	Laser drive controlA (ON / OFF)
3	LDONB	O	Laser drive controlB (ON / OFF)
4	PULIN	O	DSL and PLL high boost signal (FEP)
5	SRF	O	Head amplifier gain H/L selection
6	DVSS	—	Ground for digital circuit
7	TRAYSET1	O	Tray drive ON/OFF and direction control
8	TRAYSET2	O	Tray drive ON/OFF and direction control
9	DRVMUTE	O	Drive IC mute control
10	DVDD	—	Power supply for digital circuit
11	TRVSW	I	Surroundings position detection in traverse
12	TRAY-CLOSE	I	Tray close detection SW
13	TRAY-OPEN	I	Tray opening detection SW
14	ST/SP	O	Spindle motor drive switch (START /STOP)
15	HFMON	O	High cycle module control
16	BRK	O	Spindle motor IC short brake control
17	DVSS	—	Ground for digital circuit
18	PLLOK	I	SYNC detection (DVD : 18T / CD : 22T)
19	N.C.	O	
20	TBAL(PWMDA1)	O	Tracking balance (FEP)
21	GBAL(PWMDA2)	O	Tangential balance (FEP)
22	BDOLVL(PWMDA3)	O	BDO slice level (FEP)
23	OFTLVL(PWMDA4)	O	Off-track error slice level (FEP)
24	N.C.	O	
25	N.C.	O	
26	N.C.	O	
27	DVSS	—	Ground for digital circuit
28	DVDD	—	Power supply for digital circuit
29	TSTSG	O	Self calibration signal (FEP)
30	FUPDN	O	Signal of frequency UP/DOWN of PLL (FEP)
31	MONA	O	Monitor terminal A
32	MONB	O	Monitor terminal B
33	CPSEN	I	Servo DSP serial I/F chip selection (SYSCOM)
34	CPCEN	I	CIRC serial I/F chip selection (SYSCOM)
35	CPUIRQ	O	Interrupt request to silicon (SYSCOM)
36	CPUCLK	I	Silicon serial I/F clock (SYSCOM)
37	CPUDTIN	I	Silicon serial I/F data input (SYSCOM)
38	CPUDTOUT	O	Silicon serial I/F data output (SYSCOM)
39	CHK4I	I	Connects with unused DVSS
40	SCLK+	I	Lead channel clock differential motion signal (positive)
41	SCLK-	I	Lead channel clock differential motion signal (negative)
42	SDAT+	I	Lead channel data differential motion signal (positive)
43	SDAT-	I	Lead channel data differential motion signal (negative)
44	BDO	I	BDO + BCA (FEP)
45	SBCK	I	CD sub-code data shift clock (ODC)
46	IREF2	—	Connects with unused DVSS

MN67705EA (2/3)

Pin No.	Symbol	I/O	Function
47	IREF3	—	Connects with unused DVSS
48	VCOF2	—	Connects with unused DVSS
49	DVSS	—	Ground for digital circuit
50	VCOE3	—	Connects with unused DVSS
51	DVSS	—	Ground for digital cirucuit
52	DVDD	—	Power supply for digital cirucuit
53	SUBC	O	CD sub-code (ODC)
54	BLKCLK	O	CD sub-code synchronous signal (ODC)/Jump output of one at DVD
55	MONC	O	Monitor terminal C
56	NCLDCK	O	Sub-code data frame clock (ODC)
57	LRCK	O	LR channnel data strove CIRC(ODC)
58	NTRON	O	L: Tracking ON (ODC)
59	DVSS	—	Ground for digital cirucuit
60	DAT0	O	CIRC / Binary making DVD data output
61	DAT1	O	CIRC / Binary making DVD data output
62	DAT2	O	CIRC / Binary making DVD data output
63	DAT3	O	CIRC / Binary making DVD data output
64	CHCK4	O	Synchronous clock of DAT0～3
65	DVSS	—	Ground for digital circuit
66	DACCLK	O	
67	DACLRCK	I	Connects with unused DVSS
68	DACDATA	I	Connects with unused DVSS
69	CIRCIRQ	O	RAM with built-in CIRC exceeds / Underflow interrupt
70	IPFLAG	O	CIRC error flag
71	MOND	O	Monitor terminal D
72	TX	O	Digital audio interface
73	DVSS	—	Ground for digital cirucuit
74	DVDD	—	Power supply for digital cirucuit
75	AVSS	—	Ground for analog cirucuit
76	VREFLAD	—	AD subordinate position standard voltage (0.6±0.1v)
77	VREFMAD	—	It is a place standard voltage in AD (1.4±0.1V)
78	VREFHAD	—	High-ranking AD standard voltage (2.2±0.1V)
79	AVDD	—	Power supply for analog circuit
80	VREFC(AD12)	I	
81	JITOUT(AD11)	I	Jitter signal(FEP)
82	LDCUR(AD10)	I	Laser drive current signal
83	VREFOP	—	Operation amplifier standard voltage(VREFC)
84	RFENV(AD9)	I	RFENV(FEP)
85	N.C.(AD8)	I	Connects with VREFC
86	N.C.(AD7)	I	Connects with VREFC
87	TG(AD6)	I	Tangential Phase difference (FEP)
88	VREFHDA	—	High-ranking AD standard voltage (2.2±0.1V)
89	VREFMDA	—	It is a place standard voltage in AD (1.4±0.1V)
90	VREFLDA	—	AD subordinate position standard voltage (0.6±0.1v)
91	TE(AD5)	I	Tracking error (FEP)
92	TROFS(AD4)	I	Tracking drive IC input offset
93	FE(AD3)	I	Focus error (FEP)

MN67705EA (2/3)

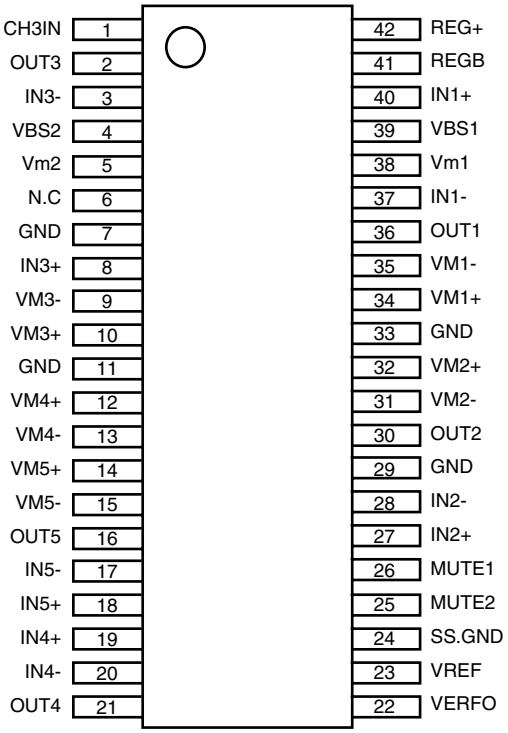
Pin No.	Symbol	I/O	Function
47	IREF3	—	Connects with unused DVSS
48	VCOF2	—	Connects with unused DVSS
49	DVSS	—	Ground for digital circuit
50	VCOE3	—	Connects with unused DVSS
51	DVSS	—	Ground for digital cirucuit
52	DVDD	—	Power supply for digital cirucuit
53	SUBC	O	CD sub-code (ODC)
54	BLKCLK	O	CD sub-code synchronous signal (ODC)/Jump output of one at DVD
55	MONC	O	Monitor terminal C
56	NCLDCK	O	Sub-code data frame clock (ODC)
57	LRCK	O	LR channnel data strove CIRC(ODC)
58	NTRON	O	L: Tracking ON (ODC)
59	DVSS	—	Ground for digital cirucuit
60	DAT0	O	CIRC / Binary making DVD data output
61	DAT1	O	CIRC / Binary making DVD data output
62	DAT2	O	CIRC / Binary making DVD data output
63	DAT3	O	CIRC / Binary making DVD data output
64	CHCK4	O	Synchronous clock of DAT0～3
65	DVSS	—	Ground for digital circuit
66	DACCLK	O	
67	DACLRCK	I	Connects with unused DVSS
68	DACDATA	I	Connects with unused DVSS
69	CIRCIRQ	O	RAM with built-in CIRC exceeds / Underflow interrupt
70	IPFLAG	O	CIRC error flag
71	MOND	O	Monitor terminal D
72	TX	O	Digital audio interface
73	DVSS	—	Ground for digital cirucuit
74	DVDD	—	Power supply for digital cirucuit
75	AVSS	—	Ground for analog cirucuit
76	VREFLAD	—	AD subordinate position standard voltage (0.6±0.1v)
77	VREFMAD	—	It is a place standard voltage in AD (1.4±0.1V)
78	VREFHAD	—	High-ranking AD standard voltage (2.2±0.1V)
79	AVDD	—	Power supply for analog circuit
80	VREFC(AD12)	I	
81	JITOUT(AD11)	I	Jitter signal(FEP)
82	LDCUR(AD10)	I	Laser drive current signal
83	VREFOP	—	Operation amplifier standard voltage(VREFC)
84	RFENV(AD9)	I	RFENV(FEP)
85	N.C.(AD8)	I	Connects with VREFC
86	N.C.(AD7)	I	Connects with VREFC
87	TG(AD6)	I	Tangential Phase difference (FEP)
88	VREFHDA	—	High-ranking AD standard voltage (2.2±0.1V)
89	VREFMDA	—	It is a place standard voltage in AD (1.4±0.1V)
90	VREFLDA	—	AD subordinate position standard voltage (0.6±0.1v)
91	TE(AD5)	I	Tracking error (FEP)
92	TROFS(AD4)	I	Tracking drive IC input offset
93	FE(AD3)	I	Focus error (FEP)

MN67705EA(3/3)

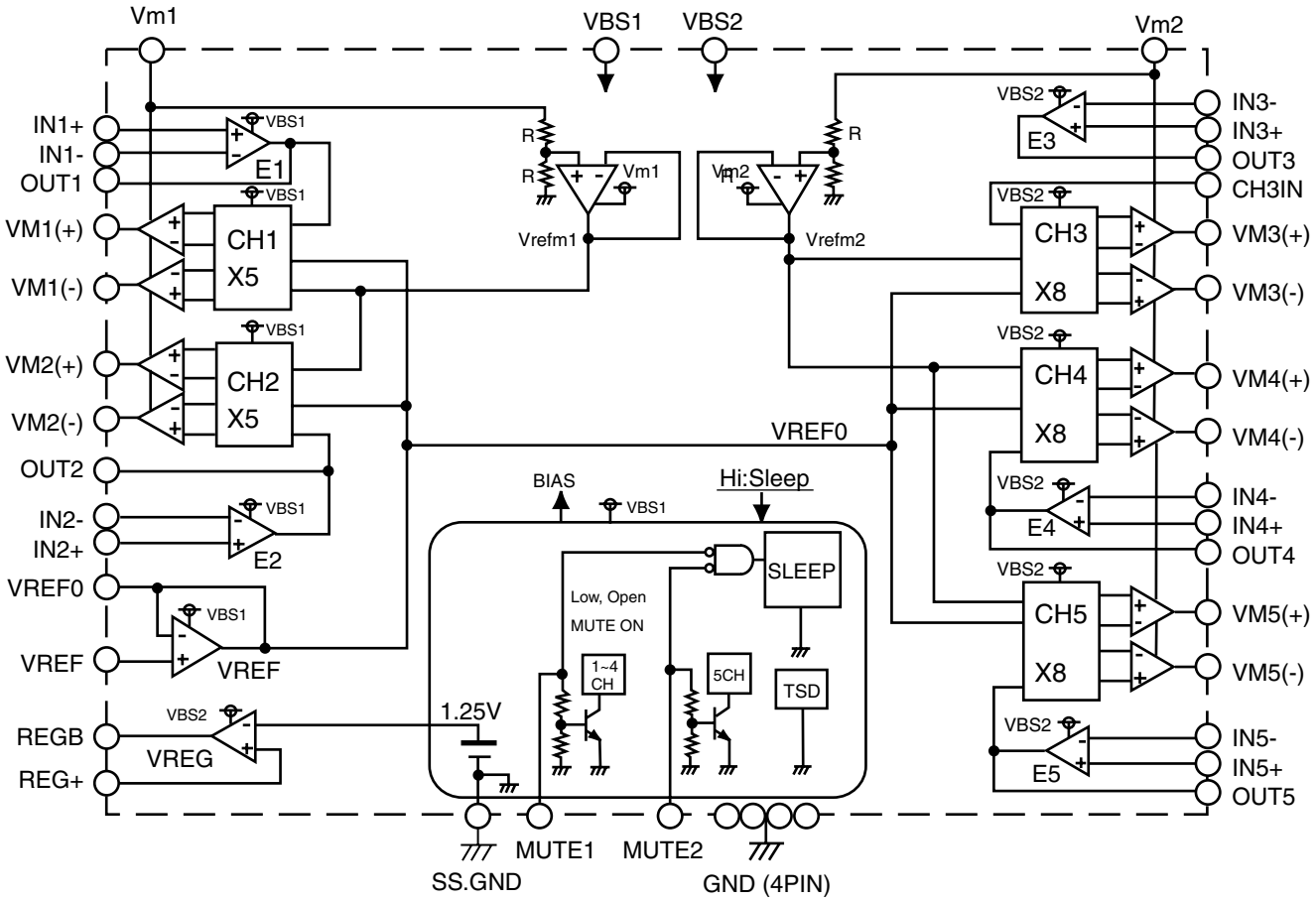
Pin No.	Symbol	I/O	Function
94	FS(AD2)	I	FS (FEP)
95	TS(AD1)	I	TS (FEP)
96	AVSS	—	Ground for analog cirucuit
97	AVDD	—	Power supply for analog circuit
98	FBAL(DA1)	O	Focus balance(FEP)
99	FC(DA2)	O	Cutting off frequency (FEP)
100	BOOST(DA3)	O	Amount of boost (FEP)
101	DBAL(DA4)	O	DSL offset balance (FEP)
102	FODRV(DA5)	O	Focus drive
103	TRDRV(DA6)	O	Tracking drive
104	TRSDRVA(DA7)	O	Traverse drive A aspect
105	TRSDRVB(DA8)	O	Traverse drive B aspect
106	DVDD	—	Power supply for digital cirucuit
107	OFTR	I	Off-track error signal (FEP)
108	TKCRS1	I	Track crossing signal 1 (FEP)
109	TKCRS2	I	Track crossing signal 2 (FEP)
110	DSLO	I	Binary making data slice signal (FEP)
111	FG	I	FG signal input (spindle motor driver)
112	MINTEST	—	Connects with DVSS
113	TEST	—	Connects with DVSS
114	XRESET	I	Reset L : Reset
115	IREF1	—	VCO reference current 1(for SYSCLK)
116	DVSS	—	Ground for digital circuit)
117	VCOF1	—	VCO control voltage 1 (for SYSCLK)
118	SYSCLK	I	33.8MHz system clock input
119	DVSS	—	Ground for digital circuit
120	EC(PWM3A)	O	Spindle motor drive
121	ECR(PWM3B)	O	
122	N.C.(PWM3A)	O	
123	N.C.(PWM2B)	O	
124	N.C.(PWM1A)	O	
125	CDDVD	O	CD/DVD control signal (FEP) CD : H DVD : L
126	N.C.(PWM0A)	O	
127	N.C.(PWM0B)	O	
128	FEPNTRON	O	Tracking ON (FEP)

M56788FP-W (IC271) : Traverse mechanism driver

1.Terminal layout

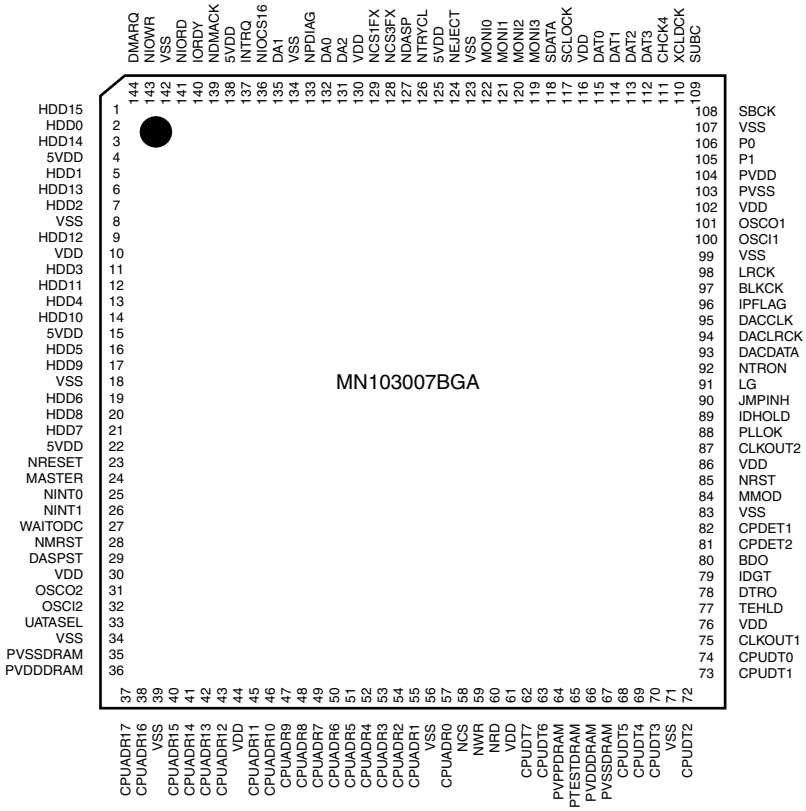


2.Block diagram

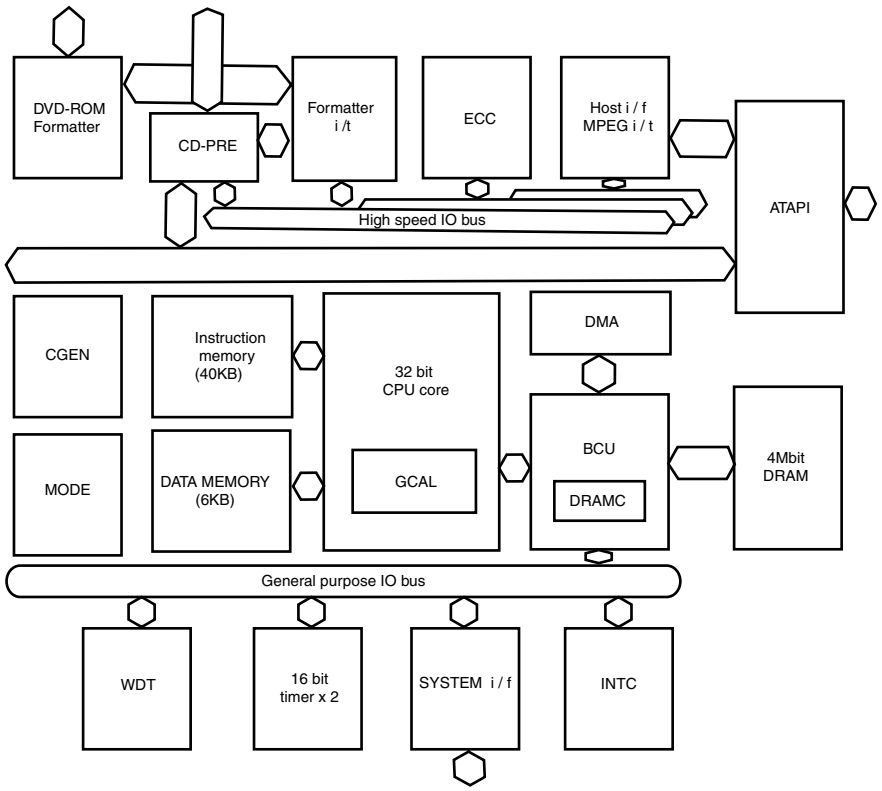


■ MN103007BGA (IC301) : Optical disc controller

1.Terminal layout



2.Block diagram



3.Pin function

MN103007BGA(1/4)

Pin NO.	Symbol	I/O	Function
1	HDD15	I/O	ATAPI data
2	HDD0	I/O	ATAPI data
3	HDD14	I/O	ATAPI data
4	5VDD		
5	HDD1	I/O	ATAPI data
6	HDD13	I/O	ATAPI data
7	HDD2	I/O	ATAPI data
8	VSS		
9	HDD12	I/O	ATAPI data
10	VDD		
11	HDD3	I/O	ATAPI data
12	HDD11	I/O	ATAPI data
13	HDD4	I/O	ATAPI data
14	HDD10	I/O	ATAPI data
15	5VDD		
16	HDD5	I/O	ATAPI data
17	HDD9	I/O	ATAPI data
18	VSS		
19	HDD6	I/O	ATAPI data
20	HDD8	I/O	ATAPI data
21	HDD7	I/O	ATAPI data
22	5VDD		
23	NRESET	I	ATAPI reset
24	MASTER	I/O	ATAPI master / slave selection
25	NINT0	O	System control interruption 0
26	NINT1	O	System control interruption 1
27	WAITODC	O	System control weight control
28	NMRST	O	System control reset
29	DASPST	I	DASP signal initializing
30	VDD		
31	OSCO2	I,O	VSS connection,OPEN
32	OSCI2	I,O	VSS connection,OPEN
33	UATASEL	I	VSS connection
34	VSS		
35	PVSSDRAM		
36	PVDDDRAM		
37	CPUADR17	I	System control address
38	CPUADR16	I	System control address
39	VSS		
40	CPUADR15	I	System control address
41	CPUADR14	I	System control address
42	CPUADR13	I	System control address
43	CPUADR12	I	System control address
44	VDD		System control address
45	CPUADR11	I	System control address

MN103007BGA(2/4)

Pin NO.	Symbol	I/O	Function
46	CPUADR10	I	System control address
47	CPUADR9	I	System control address
48	CPUADR8	I	System control address
49	CPUADR7	I	System control address
50	CPUADR6	I	System control address
51	CPUADR5	I	System control address
52	CPUADR4	I	System control address
53	CPUADR3	I	System control address
54	CPUADR2	I	System control address
55	CPUADR1	I	System control address
56	VSS		GND
57	CPUADR0	I	System control address
58	NCS	I	System control chip select
59	NWR	I	System control write
60	NRD	I	System control read
61	VDD		Apply 3V
62	CPUDT7		System control data
63	CPUDT6		System control data
64	PVPPDRAM	O	C=10000PF is connected between VSS
65	PTESTDRAM	I	VSS connected
66	PVDDDRAM		
67	PVSSDRAM		
68	CPUDT5		System control data
69	CPUDT4		System control data
70	CPUDT3		System control data
71	VSS		GND
72	CPUDT2		System control data
73	CPUDT1	I/O	System control data
74	CPUDT0	I/O	System control data
75	CLKOUT1	O	16.9/11.2/8.45MHz clock
76	VDD	-	Apply 3V
77	TEHLD	O	Mirror gate
78	DTRO	O	Data part frequency control switch
79	IDGT	O	Part CAPA switch
80	BDO	I	RF dropout / BCA data of making to binary
81	CPDET2	I	Outer side CAPA detection
82	CPDET1	I	Side of surroundings on inside
83	VSS		GND
84	MMOD	I	VSS connected
85	NRST	I	System reset
86	VDD	-	Apply 3V
87	CLKOUT2	O	16.9MHz clock
88	PLLOK	O	Frame mark detection
89	IDHOLD	O	ID gate for tracking holding
90	JMPINH	O	Jump prohibition

MN103007BGA(3/4)

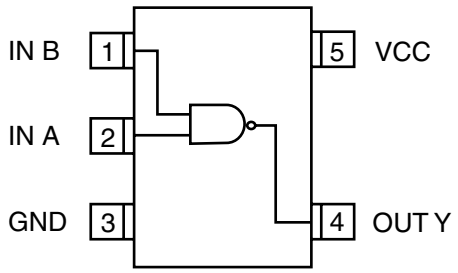
Pin NO.	Symbol	I/O	Function
91	LG	O	Land / group switch
92	NTRON	I	Tracking ON
93	DACDATA	O	Serial output
94	DACLRCK	O	L and R identification output
95	DACCLK	I	Clock for serial output
96	IPFLAG	I	Interpolation flag input
97	BLKCK	I	Sub-code,Block clock input
98	LRCK	I	L and R identification signal output
99	VSS		
100	OSCI1	I,O	16.9MHz oscillation
101	OSCO1	I,O	16.9MHz oscillation
102	VDD		
103	PVSS		
104	PVDD		
105	P1	I/O	Terminal MASTER polarity switch input
106	P0	I/O	CIRC-RAM OVER/UNDER Interruption signal input
107	VSS		
108	SBCK	O	Sub-code, Clock output for serial input
109	SUBC	I	Sub-code, Serial input
110	XCLDCK	I	Sub-code, Frame clock input
111	CHCK4	I	Read clock to DAT3~0 (Output of dividing frequency four from ADSC)
112	DAT3	I	Read data from DISC (Parallel output from ADSC)
113	DAT2	I	
114	DAT1	I	
115	DAT0		
116	VDD		
117	SCLOCK	I/O	Debugging serial clock (270Ω pull up)
118	SDATA	I/O	Debugging serial data (270Ω pull up)
119	MONI3	O	Internal goods title monitor
120	MONI2	O	
121	MONI1	O	
122	MONI0	O	
123	VSS		
124	NEJECT	I	Eject detection
125	5VDD		
126	NTRYCL	I	Tray close detection
127	NDASP	I/O	ATAPI Drive active/ Slave connection I/O
128	NCS3FX	I	ATAPI host chip select
129	NCS1FX	I	ATAPI host chip select
130	VDD		
131	DA2	I/O	ATAPI host address
132	DA0	I/O	ATAPI host address

MN103007BGA(4/4)

Pin NO.	Symbol	I/O	Function
133	NPDIAG	I/O	ATAPI slave master diagnosis input
134	VSS		
135	DA1	I/O	ATAPI host address
136	NIOCS16	O	ATAPI output of selection of width of host data bus
137	INTRQ	O	ATAPI host interruption output
138	5VDD		
139	NDMACK	I	ATAPI host DMA response
140	IORDY	O	ATAPI host ready output
141	NIORD	I	ATAPI host read
142	VSS		
143	NIOWR	I/O	ATAPI host write
144	DMARQ	O	ATAPI host DMA demand

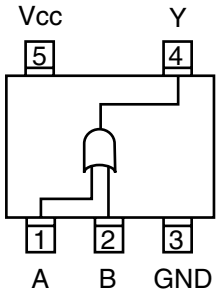
■ TC7SH08FU-X (IC311) : Timing control

1.Terminal layout



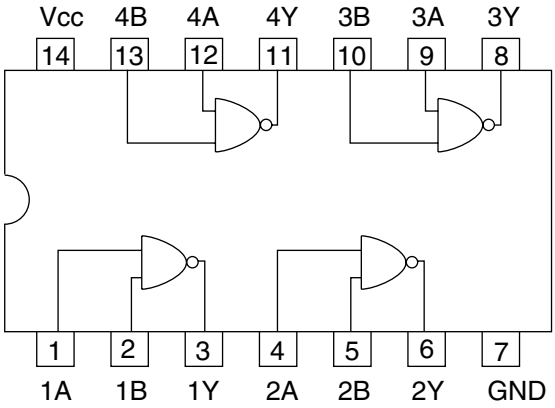
■ TC7SH32FU-X (IC312) : 2 Input Single OR Gate

1.Terminal layout



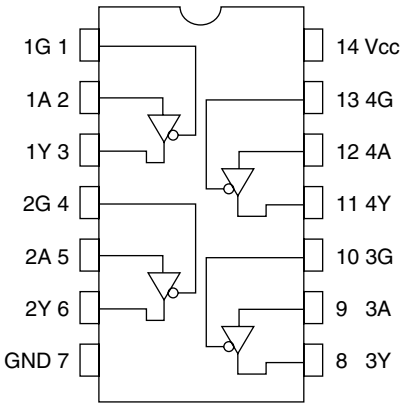
■ TC74VHC00FT-X (IC322,IC503) : Write timing control

1.Terminal layout / Block diagram



■ TC74VHC125FT-X (IC411) : Buffer

1. Pin layout & block diagram



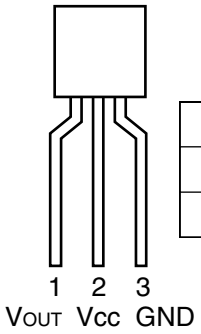
2. Truth table

INPUTS		OUTPUTS
$\overline{G}$	A	Y
H	X	Z
L	L	L
L	H	H

X: Don't care
Z:High impedance

■ IC-PST9140-T (IC702) : SYSTEM RESET

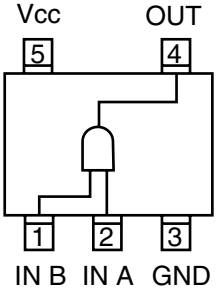
1.Terminal layout



1	VOUT
2	Vcc
3	GND

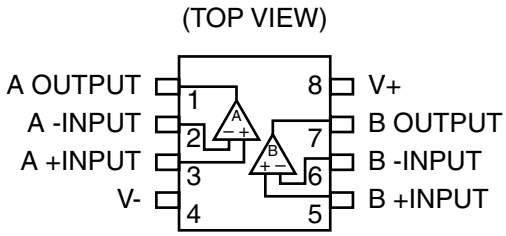
■ TC7S07F-W (IC704) : 2 Input Single AND Gate

1.Terminal layout



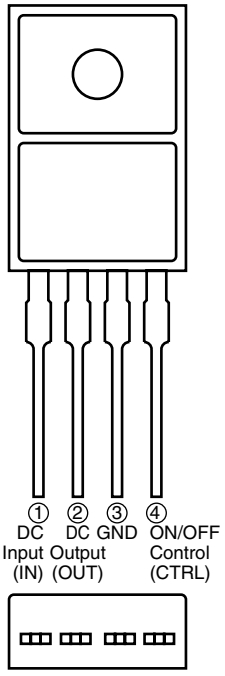
■ NJM4580M-X (IC741,IC751) : Dual Operational Amplifier

1.Terminal layout



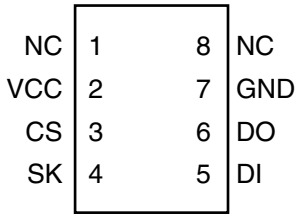
■ PQ05RD21 (IC951) : Regulator

1.Terminal layout



■ BR93LC66F-X(IC403):EEPROM

1.Terminal layout

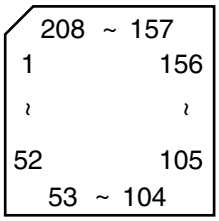


2.Pin Functions

Symbol	I/O	Function
VCC	-	Power supply
GND	-	Connect to GND
CS	I	Chip select input
SK	I	Serial clock input
DI	I	Start bit,OP-code,address,serial data input
DO	O	Serial data output, Internal state display output of READY/BUSY

■ ZIVA-4.1-PA2(IC501):Back end - Digital decoder

1.Terminal layout



2.Pin function (1/5)

Pin No.	Symbol	I/O	Description
1	RD	I	Read strobe input
2	R/W	I	Read/write strobe input
3	VDD	-	Power supply terminal 3.3V
4	WAIT	O	Transfer not complete / data acknowledge. Active LOW to indicate host initiated transfer is complete.
5	RESET	I	Active LOW : reset signal input
6	VSS	-	Connect to ground
7	VDD	-	Power supply terminal 3.3V
8	INT	O	Host interrupt signal output
9	NC	-	Non connect
10	NC	-	Non connect
11	NC	-	Non connect
12	NC	-	Non connect
13	VDD	-	Power supply terminal 2.5V
14	VSS	-	Connect to ground
15	NC	-	Non connect
16	NC	-	Non connect
17	NC	-	Non connect
18	NC	-	Non connect
19	VSS	-	Connect to ground
20	VDD	-	Power supply 3.3V
21	VDATA0	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
22	VDATA1	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
23	VDATA2	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
24	VDATA3	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
25	VDATA4	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
26	VDATA5	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
27	VDATA6	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
28	VDATA7	O	Video data bus output. Byte serial CbYCrY data synchronous with VCLK.
29	VSYNC	I/O	Vertical sync. Bi-directional, the decoder output the top border of a new field on the first HSYNC after the falling edge of VSYNC.
30	HSYNC	I/O	Horizontal sync. The decoder begins outputting pixel data for a new horizontal line after the falling (active) edge of HSYNC.
31	VSS	-	Connect to ground
32	VDD	-	Power supply terminal 3.3V
33	NC	-	Non connect
34	NC	-	Non connect
35	NC	-	Non connect
36	VDD	-	Power supply terminal 2.5V

2.Pin function (2/5)

Pin No.	Symbol	I/O	Description
37	VSS	-	Connect to ground
38	NC	-	Non connect
39	NC	-	Non connect
40	NC	-	Non connect
41	NC	-	Non connect
42	NC	-	Non connect
43	PIO0	I/O	Programmable I/O terminal
44	VSS	-	Connect to ground
45	VDD	-	Power supply terminal 3.3V
46	PIO1	I/O	Programmable I/O terminal
47	PIO2	I/O	Programmable I/O terminal
48	PIO3	I/O	Programmable I/O terminal
49	PIO4	I/O	Programmable I/O terminal
50	PIO5	I/O	Programmable I/O terminal
51	PIO6	I/O	Programmable I/O terminal
52	PIO7	I/O	Programmable I/O terminal
53	MDATA0	I/O	SDRAM data
54	MDATA1	I/O	SDRAM data
55	VDD	-	Power supply terminal 3.3V
56	VSS	-	Connect to ground
57	MDATA2	I/O	SDRAM data
58	MDATA3	I/O	SDRAM data
59	MDATA4	I/O	SDRAM data
60	MDATA5	I/O	SDRAM data
61	MDATA6	I/O	SDRAM data
62	MDATA7	I/O	SDRAM data
63	MDATA15	I/O	SDRAM data
64	VDD	-	Power supply terminal 3.3V
65	VSS	-	Connect to ground
66	MDATA14	I/O	SDRAM data
67	VDD	-	Power supply terminal 2.5
68	VSS	-	Connect to ground
69	MDATA13	I/O	SDRAM data
70	MDATA12	I/O	SDRAM data
71	MDATA11	I/O	SDRAM data
72	MDATA10	I/O	SDRAM data
73	MDATA9	I/O	SDRAM data
74	VDD	-	Power supply terminal 3.3V
75	VSS	-	Connect to ground
76	MDATA8	I/O	SDRAM data
77	LDQM	O	SDRAM Lower or upper mask
78	SD-CLK	O	SDRAM Clock
79	CLKSEL	I	Selects SYSCLK or VCLK as clock source. Normal operation is to tie HIGH.
80	MADDR9	O	SDRAM address
81	MADDR8	O	SDRAM address
82	VDD	-	Power supply terminal 3.3V
83	VSS	-	Connect to ground
84	MADDR7	O	SDRAM address

2.Pin function (3/5)

Pin No.	Symbol	I/O	Description
85	MADDR6	O	SDRAM address
86	MADDR5	O	SDRAM address
87	VDD	-	Power supply terminal 2.5V
88	VSS	-	Connect to ground
89	MADDR4	O	SDRAM address
90	MWE	O	SDRAM write enable
91	SD-CAS	O	Active LOW SDRAM column address
92	VDD	-	Power supply terminal 3.3V
93	VSS	-	Connect to ground
94	SD-RAS	O	Active LOW SDRAM row address
95	SD-CS0	O	Active LOW SDRAM chip select 0
96	SD-CS1/MADDR11	O	Active LOW SDRAM chip select 1 or use as MADDR11 for larger SDRAM
97	SD-BS	O	SDRAM bank select
98	MADDR10	O	SDRAM address
99	MADDR0	O	SDRAM address
100	VDD	-	Power supply terminal 3.3V
101	VSS	-	Connect to ground
102	MADDR1	O	SDRAM address
103	MADDR2	O	SDRAM address
104	MADDR3	O	SDRAM address
105	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table1
106	NC	-	Non connect
107	NC	-	Non connect
108	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table1
109	NC	-	Non connect
110	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table1
111	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table1
112	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table1
113	DAI-LRCK	I	PCM left/right clock
114	DAI-BCK	I	PCM input bit clock
115	VDD	-	Power supply 3.3V
116	VSS	-	Connect to ground
117	DAI-DATA	I	PCM data input
118	DA-DATA3	O	PCM data output. Eight channels. Serial audio samples relative to DA_BCK and DA_LRCK
119	DA-DATA2	O	PCM data output. Eight channels. Serial audio samples relative to DA_BCK and DA_LRCK
120	DA-DATA1	O	PCM data output. Eight channels. Serial audio samples relative to DA_BCK and DA_LRCK
121	DA-DATA0	O	PCM data output. Eight channels. Serial audio samples relative to DA_BCK and DA_LRCK
122	DA-LRCK	O	PCM left clock. Identifies the channel for each sample
123	VDD	-	Power supply terminal 3.3V
124	VSS	-	Connect to ground
125	DA-XCK	I/O	Audio external frequency clock input or output
126	DA-BCK	O	PCM bit clock output
127	DA-IEC	O	PCM data out in IEC-958 format or compressed data out in IEC-1937 format
128	VDD	-	Power supply terminal 2.5V

2.Pin function (4/5)

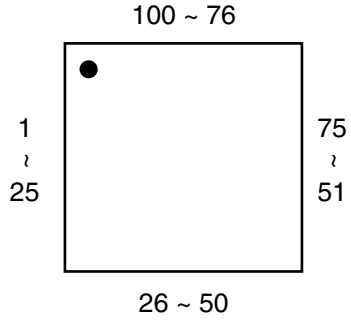
Pin No.	Symbol	I/O	Description
129	VSS	-	Connect to ground
130	NC	-	Non connect
131	VSS_DAC	-	Connect to ground for analog video DAC
132	VSS_VIDEO	-	Connect to ground for analog video
133	CVBS	O	DAC video output format : CVBS. Macrovision encoded
134	VDD_DAC	-	Power supply terminal for analog video DAC
135	VDD_VIDEO	-	Power supply terminal for analog video
136	NC	-	Non connect
137	VSS_DAC	-	Connect to ground for analog video DAC
138	VSS_VIDEO	-	Connect to ground for analog video
139	CVBS/G/Y	O	DAC video output format. Macrovision encoded
140	VDD_DAC	-	Power supply terminal for analog video DAC
141	VDD_VIDEO	-	Power supply terminal for analog video
142	NC	-	Non connect
143	VSS_DAC	-	Connect to ground for analog video DAC
144	VSS_VIDEO	-	Connect to ground for analog video
145	Y/B/U	O	DAC video output format. Macrovision encoded
146	VDD_DAC	-	Power supply terminal for analog video DAC
147	VDD_VIDEO	-	Power supply terminal for analog video
148	NC	-	Non connect
149	VSS_DAC	-	Connect to ground for analog video DAC
150	VSS_VIDEO	-	Connect to ground for analog video
151	C/R/V	O	DAC video output format. Macrovision encoded
152	VDD_DAC	-	Power supply terminal for analog video DAC
153	VDD_VIDEO	-	Power supply terminal for analog video
154	VSS_RREF	-	Connect to ground for analog video
155	RREF	O	Reference resistor. Connecting to pin 154
156	VDD_RREF	-	Power supply terminal for analog video 3.3V
157	A_VSS	-	Power supply terminal for analog PLL 3.3V
158	SYSCLK	I	Optical system clock. Tie to A_VDD through a 1K ohm resistor
159	VCLK	I	System clock input
160	A_VDD	-	Power supply terminal for analog PLL 3.3V
161	DVD-DATA0/CD-DATA	I	Serial CD data. This pin is shared with DVD compressed data DVD-DATA0
162	DVD-DATA1/CD-LRC	I	Programmable polarity 16-bit word synchronization to the decoder. This pin is shared with DVD compressed data DVD-DATA1
163	DVD-DATA2/CD-BCK	I	CD bit clock. Decoder accept multiple BCK rates. This pin is shared with DVD compressed DVD-DATA2
164	DVD-DATA3/CD-C2PO	I	Asserted HIGH indicates a corrupted byte. This pin is shared with DVD compressed data DVD-DATA3
165	DVD-DATA4/CDGSDATA	I	DVD parallel compressed data from DVD DSP. or CD-G data indicating serial subcode data input
166	VSS	-	Connect to ground
167	VDD	-	Power supply terminal 3.3V
168	DVD-DATA5/CDG-VFSY	I	DVD parallel compressed data from DVD DSP. or CD-G frame sync indicating frame-start or composite synchronization input.
169	DVD-DATA6/CDG-SOS1	I	DVD parallel compressed data from DVD DSP. or CD-G block sync indicating block-start synchronization input

2.Pin function (5/5)

Pin No.	Symbol	I/O	Description
170	DVD-DATA7/CDG-SCLK	I	DVD parallel compressed data from DVD DSP. or CD-G clock indicating sub code data clock input or output
171	VDACK	I	In synchronous mode, bitstream data acknowledge. Asserted when DVD data is valid.Polarity is programmable
172	VREQUEST	O	Bitstream request
173	VSTROBE	I	Bitstream strobe
174	ERROR	I	Error in input data
175	VDD	-	Power supply terminal 3.3V
176	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
177	VDD	-	Power supply terminal 3.3V
178	VSS	-	Connect to ground
179	NC	-	Non connect
180	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
181	NC	-	Non connect
182	HADDR0	I	Host addressbus. 3-bit address bus selects one of eight host interface registers
183	HADDR1	I	Host addressbus. 3-bit address bus selects one of eight host interface registers
184	HADDR2	I	Host addressbus. 3-bit address bus selects one of eight host interface registers
185	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
186	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
187	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
188	VSS	-	Connect to ground
189	VDD	-	Power supply terminal 2.5V
190	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
191	VSS	-	Connect to ground
192	VDD	-	Power supply terminal 3.3V
193	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
194	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
195	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
196	RESERVED	I	Tie to VSS or VDD_3.3 as specified in table 1
197	HDATA7	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
198	VSS	-	Connect to ground
199	HDATA6	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
200	HDATA5	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
201	HDATA4	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
202	HDATA3	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
203	HDATA2	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
204	VDD	-	Power supply terminal 3.3V
205	VSS	-	Connect to ground
206	HDATA1	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
207	HDATA0	I/O	The 8-bit bi-derectional host data through which the host writes data to the decoder code.
208	CS	I	Host chip select input

■ MN101C12G (IC701) : System micom

1.Terminal layout



2.Pin function

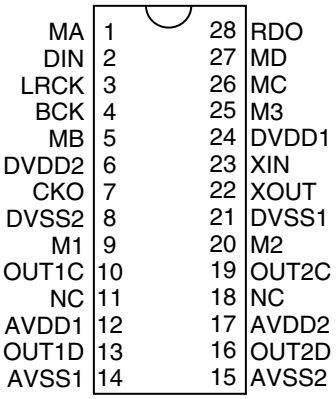
Pin No.	Symbol	I/O	Function
1	GND	-	GND
2	CS0	I	A set bit0 (It is effective in the U.E version)
3	CS1	I	A set bit1 (It is effective in the U.E version)
4	CS2	I	A set bit2 (It is effective in the U.E version)
5	NTSEL	I	NTSC/PAL switch SW input
6	POWER SW	I	Power key input
7	SHUT1	I	JOG shuttle input (AD)
8	KEY1-5	I	10 Key input (1~5)
9	KEY6-10	I	10 Key input (6~10, +10)
10	VREF	-	+B (Apply 5V)
11	VDD	-	+B (Apply 5V)
12	OSC2	O	10MHz OSC
13	OSC1	I	10MHz OSC
14	VSS	-	GND
15	-	I	Unused, Connects with GND
16	-	O	Unused
17	MMOD	I	Connects with GND
18	OSDCS3	O	V.ENCODER chip selection
19	RSTE	O	V.ENCODER reset
20	OSDDO	O	V.ENCODER communication DATA
21	S2UDT	O	Communication between unit microcomputers DATA OUT
22	U2SDT	I	Communication between unit microcomputers DATA IN
23	SCLK	O	Communication between unit microcomputers CLK
24	BUSY	O	Communication between unit microcomputers BUSY
25	CPURST	O	Unit microcomputer reset
26	REQ	I	Communication between unit microcomputers REQ
27	REMO	I	Remote control interruption
28	CS3	I	Set password change judgment bit(H:Change, L:Usual)
29	TEST	I	Un used
30	TEST	I	H:Checkers mode, L:Normal mode
31	TEST	I	H:Running mode, L:Normal mode
32	NC	I	Un used
33	RESET	I	Reset input
34	NC	O	Un uesd
35	NC	O	Un used
36	VDD	-	Un used
37	OSDCK	O	V.ENCODER communication CK
38	NT	O	NTSC/PAL Switching

MN101C12G (2/2)

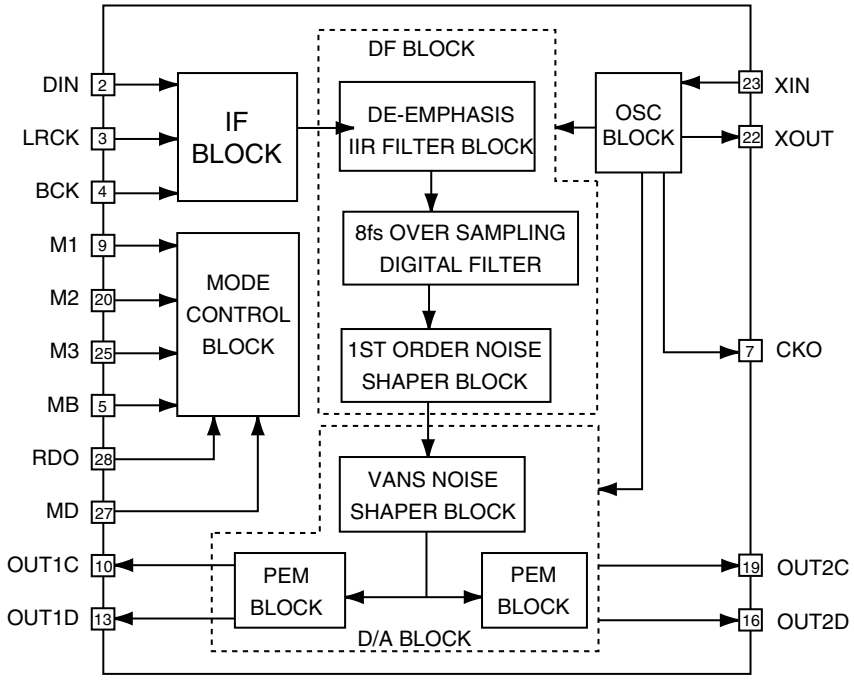
Pin No.	Symbol	I/O	Function
39	FS2	O	48kHz, 96kHz switch
40	CHREQ	I	Changer communication REQUEST
41	CHST	O	Changer communication STROBE
42	CHDATA	O	Changer communication DATAI/O
43	NC	-	Un used
44	CHCK	O	Changer communication CLOCK
45	FLDATAO	O	FL driver communication DATAO
46	FLDATAI	I	FL driver communication DATAI
47	FLCK	O	FL driver communication CLOCK
48	FLCS	O	FL driver communication CS
49	FLRST	O	FL reset output
50	EEDO	O	EEPROM communication DATAO
51	EEDI	I	EEPROM communication DATAI
52	EECK	O	EEPROM communication CLOCK
53	EECS	O	EEPROM communication CS
54	VS1	O	S1 control
55	VS3	O	S3 control(STBY:H, P.ON:L)
56	DMUT1	-	Un used
57	DMUT2	-	Un used
58	PDB2	-	Un used
59	PDB1	-	Un used
60	DEMP2	-	Un used
61	DEMP1	-	Un used
62	DENA	-	Un used
63	KARAOKE	O	KARAOKE gain control(At KARAOKE : H)
64	POWERON	O	Power ON output
65	VS2	O	S2 control
66~76	NC	O	Un used
77	AVCI	I	AV COMPULINK input
78	AVCO	O	AV COMPULINK output
79	NC	O	Un used
80	STANBYIND	O	Standby LED output
81~85	NC	O	Un used
86	CS4	O	Un used
87	MA	O	DAC control MA
88	MB	O	DAC control MB
89	M1M3	O	DAC control M1M3
90	MD	O	DAC control MD
91	MC	O	DAC control MC
92	GAIN2	-	Un used
93	GAIN1	-	Un used
94	HPMUT	O	Un used
95	DAVSS	-	Un used
96	LMUTE	O	Un used
97	CMUTE	O	Un used
98	SMUTE	O	Un used
99	MUTE	O	Front mute output
100	DAVDD	-	Apply 5V

■ MN35503-X (IC703) : D/A CONVERTER

1.Terminal layout



2.Block diagrams

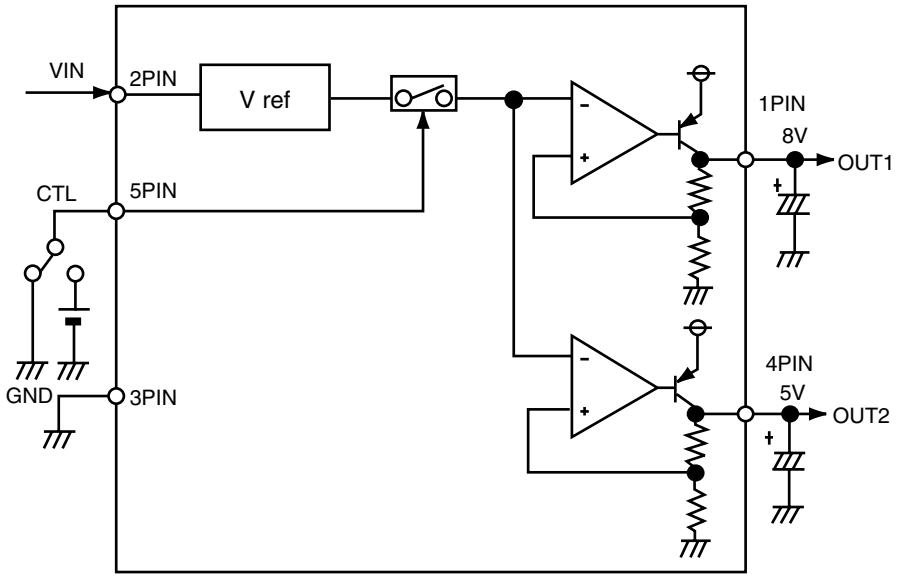


3.Pin function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	MA	-	Connected to ground	15	AVSS2	-	Analog ground 2
2	DIN	I	Data input	16	OUT2D	O	2D PEM output
3	LRCK	I	L/R clock input	17	AVDD2	-	Analog power supply 2
4	BCK	I	Bit clock input	18	NC	-	Non connection
5	MB	I	De-emphasis ON signal	19	OUT2C	O	2C PEM output
6	DVDD2	-	Digital power supply2	20	M2	-	Connected to ground
7	CKO	I	Clock output	21	DVSS1	-	Digital ground 1
8	DVSS2	-	Digital ground 2	22	XOUT	O	Crystal oscillator output
9	M1	-	Connected to ground	23	XIN	I	Crystal oscillator input
10	OUT1C	O	1C PEM output	24	DVDD1	-	Digital power supply 1
11	NC	-	Non connect	25	M3	-	Connected to ground
12	AVDD1	-	Analog power supply 1	26	MC	-	Connected to ground
13	OUT1D	O	1D PEM output	27	MD	I	Reset signal/Digital Att.control signal input
14	AVSS1	-	Analog ground 1	28	RDO	-	Not used

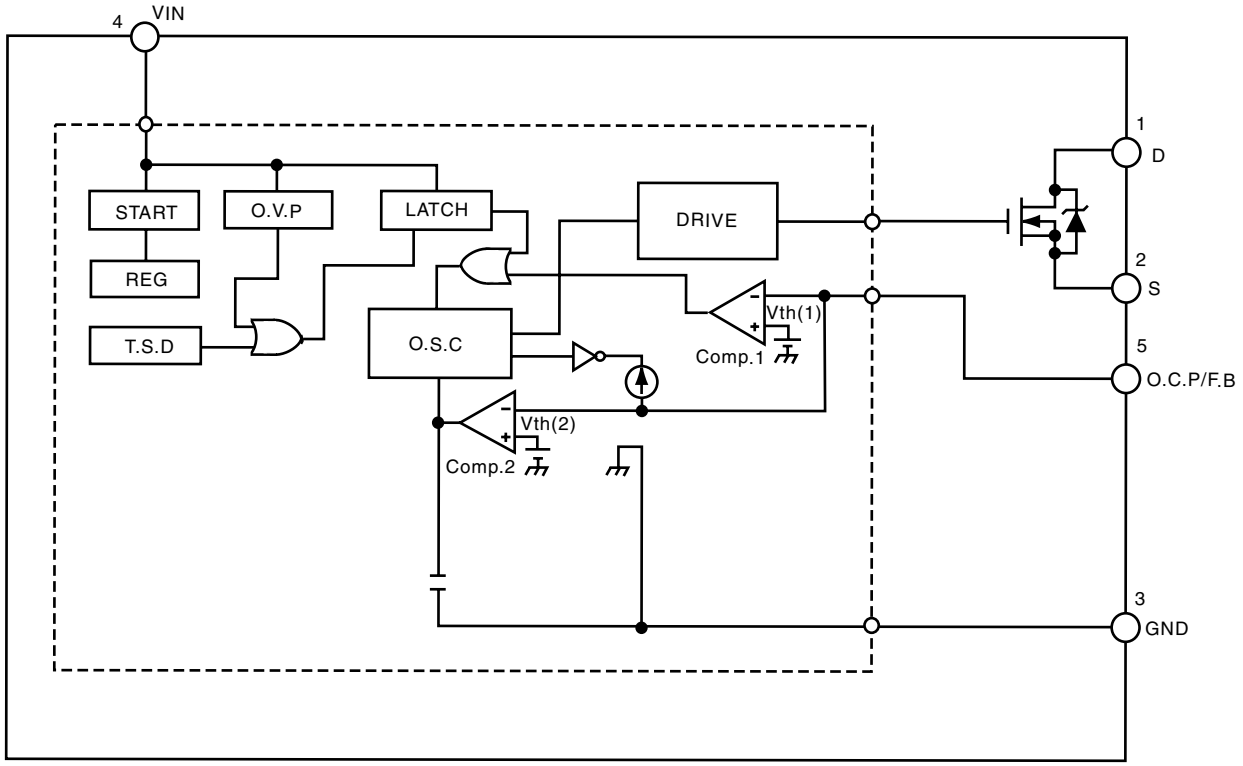
■ BA41W12ST-V5 (IC711) : Regulator

1.Block diagrams



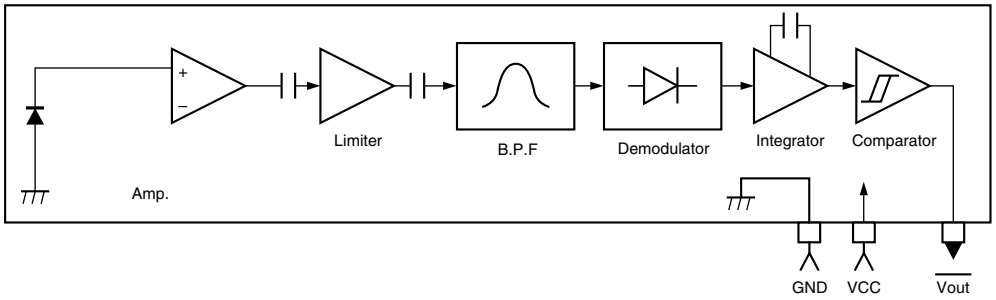
■ STR-G6651 (IC901) : Switch regulator

1.Block diagrams



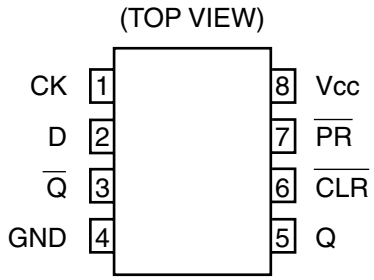
■ GP1U271X (IC801) : Receiver for remote controller

1.Block diagram

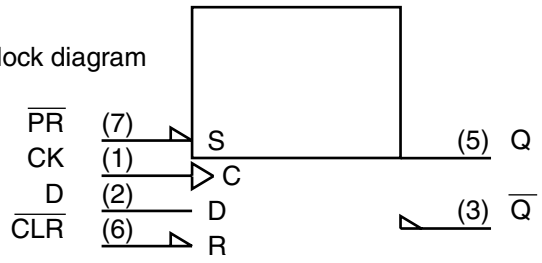


■ TC7WH74FU-X (IC321) : Clock buffer

1.Terminal layout

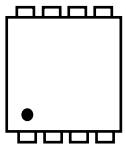


2.Block diagram

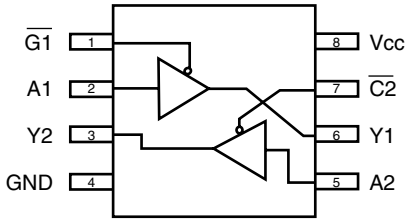


■ TC7W125FU-X (IC412) : Buffer

1. Terminal layout

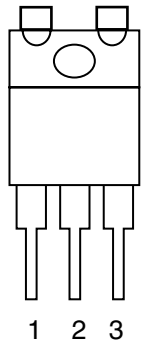


2. Block diagram



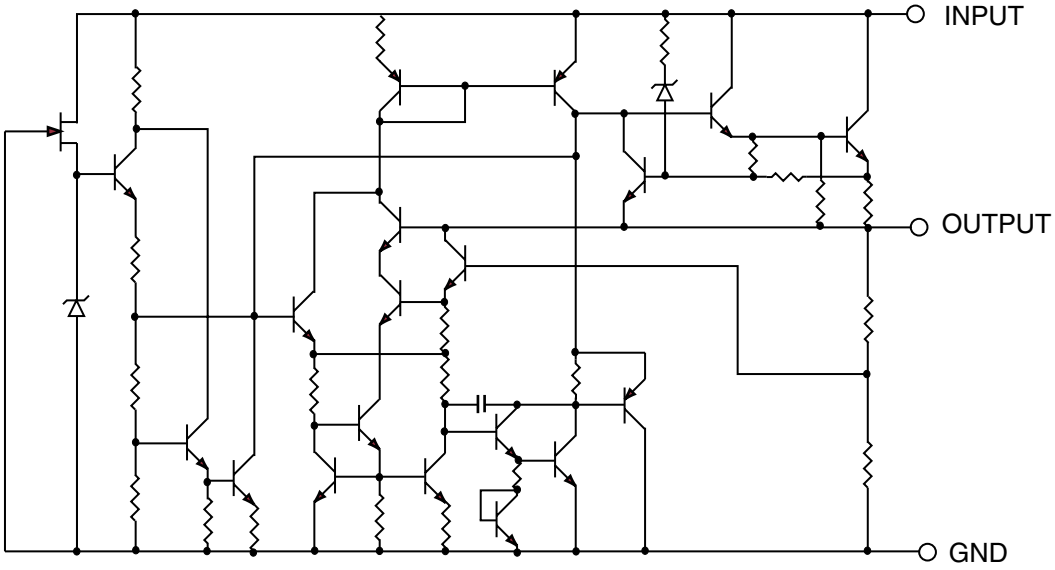
■ NJM78M05FA (IC953) : Regulator

1.Terminal layout



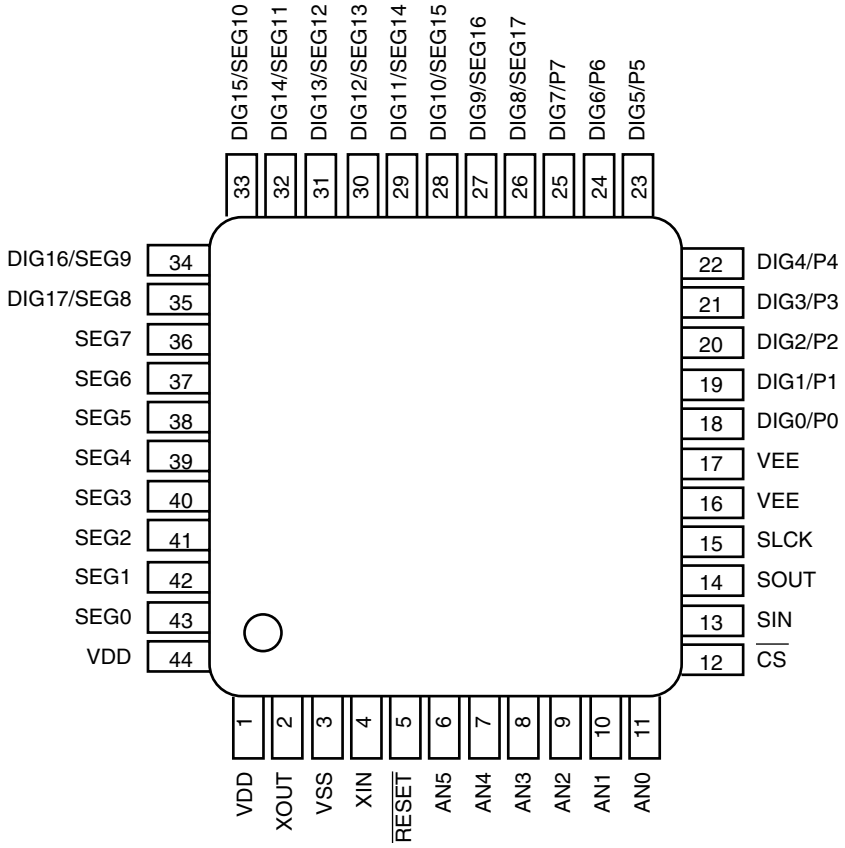
1.INPUT
2.GND
3.OUTPUT

2.Block diagram



■ M35500BGP (IC802) : FL Driver

1.Terminal layout



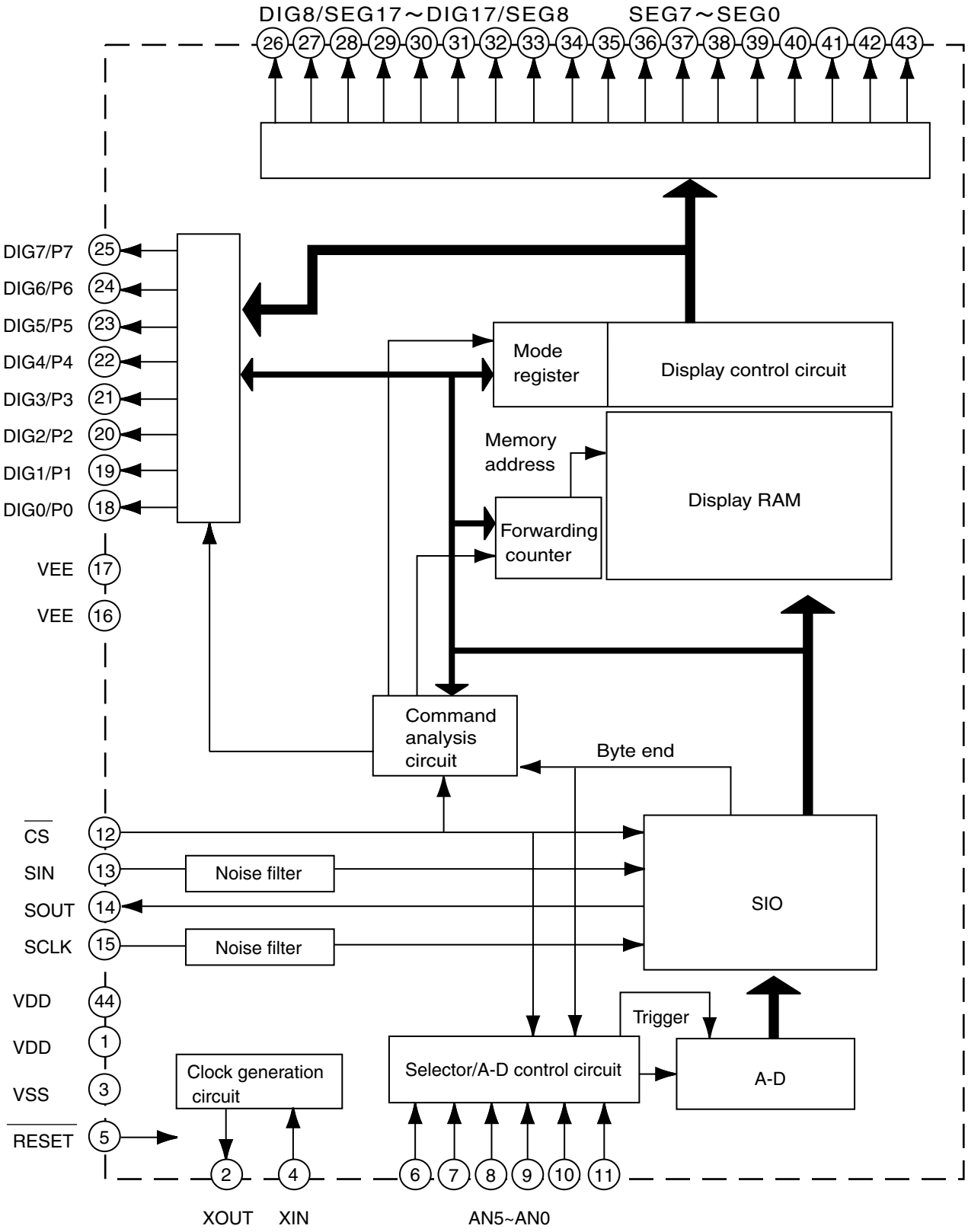
2.Pin function

M35500BGP

Pin No.	Symbol	I/O	Function
1	VDD	-	+B
2	XOUT	O	Both terminals are short-circuited on the outside, and capacity is connected.
3	VSS	-	0v is supplied to vss.
4	XIN	I	Both terminals are short-circuited on the outside, and capacity is connected.
5	$\overline{\text{RESET}}$	I	Reset input of active "L" The pull-up resistor is built into between Vcc terminals.
6	AN5	I	Key S811~S815 input
7	AN4	-	GND
8	AN3	-	GND
9	AN2	I	Key S821~S826 input
10	AN1	I	SHUTTLE control
11	AN0	I	Key S831~S836 input
12	$\overline{\text{CS}}$	I	When "L" is input, serial data can be forwarded.
13	SIN	I	The serial data is input. Take in twice continuously with the sample clock of 2MHz.
14	SOUT	O	The serial data is output. Becomes "Hiz" while resetting
15	SCLK	I	Clock of serial transfer is input.Take in twice continuously with the sample clock of 2MHz.
16	VEE	-	The voltage supplied to the pull down resistance is added.
17	VEE		
18	DIG0/P0	O	Digit output or general-purpose output terminal. At reset:Becomes "V_{EE}" level through the pull down resistance.
19	DIG1/P1		
20	DIG2/P2		
21	DIG3/P3		
22	DIG4/P4		
23	DIG5/P5		
24	DIG6/P6		
25	DIG7/P7		
26	DIG8/SEG17	O	Digit output or segment output terminal. At reset : Becomes "V_{EE}" level through the pull down resistance.
27	DIG9/SEG16		
28	DIG10/SEG15		
29	DIG11/SEG14		
30	DIG12/SEG13		
31	DIG13/SEG12		
32	DIG14/SEG11		
33	DIG15/SEG10		
34	DIG16/SEG9		
35	DIG17/SEG8		
36	SEG7	O	Segment output terminal. At reset : Becomes "V_{EE}" level through the pull down resistance.
37	SEG6		
38	SEG5		
39	SEG4		
40	SEG3		
41	SEG2		
42	SEG1		
43	SEG0		
44	VDD	-	+B

3. Block diagram

M35500BGP



PARTS LIST

[XV-M52SL]
[XV-M50BK]

* All printed circuit boards and its assemblies are not available as service parts.

[XV-M52SL]

Area Suffix
B ---------- U.K.
EN ----- Northern Europe
UN ---------- Asean
US ---------- Singapore
UW -- Brazil,Mexico,Peru

[XV-M50BK]

Area Suffix
UJ ----------U.S. military

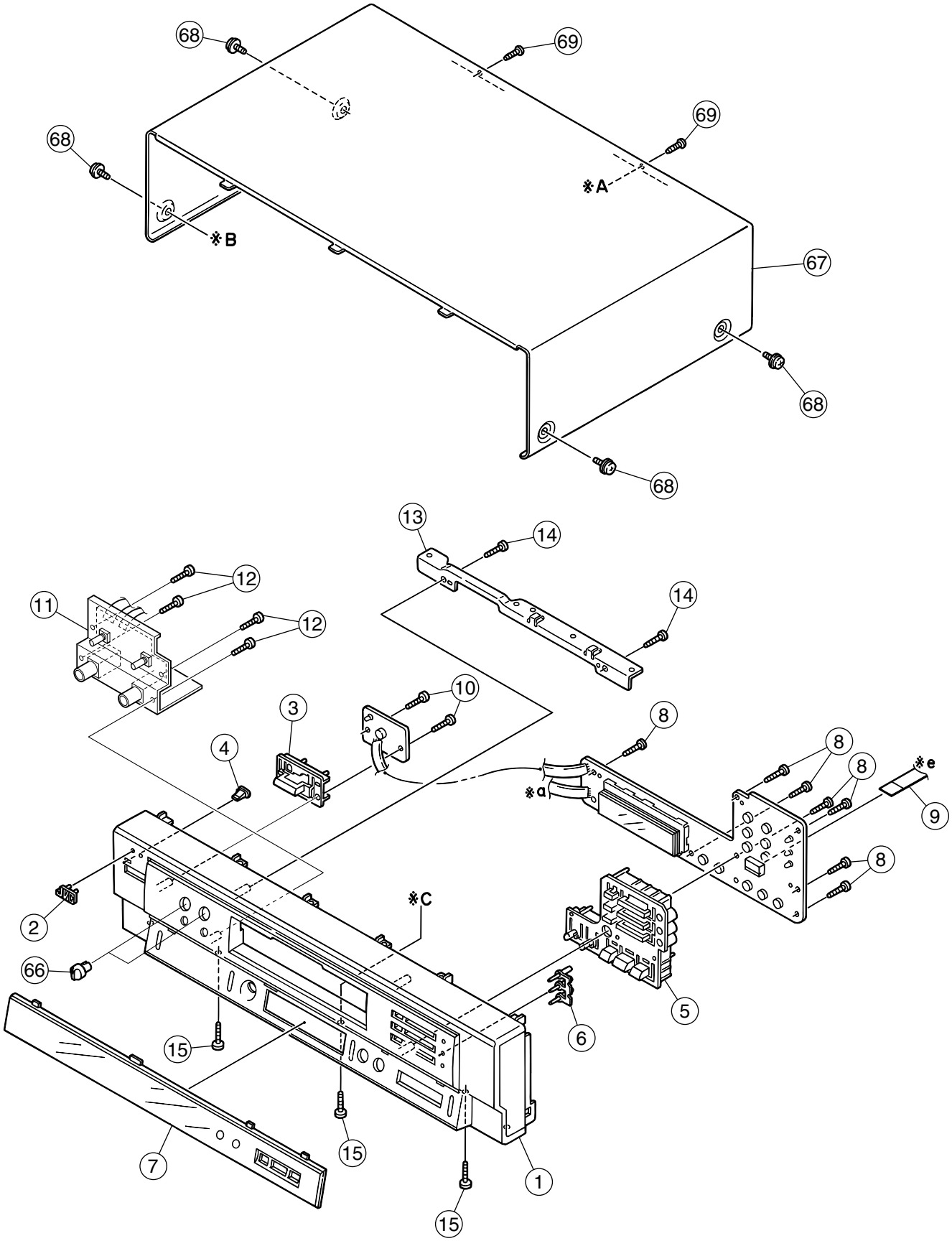
- Contents -

Exploded view of general assembly and parts list ---------- 3-2
DVD changer mechanism assembly and parts list ---------- 3-6
DVD Mechanism assembly and parts list ---------- 3-8
Electrical parts list ---------- 3-10
Packing materials and accessories parts list ---------- 3-19

Exploded view of general assembly and parts list

■ **Exploded view of general assembly 1/2**

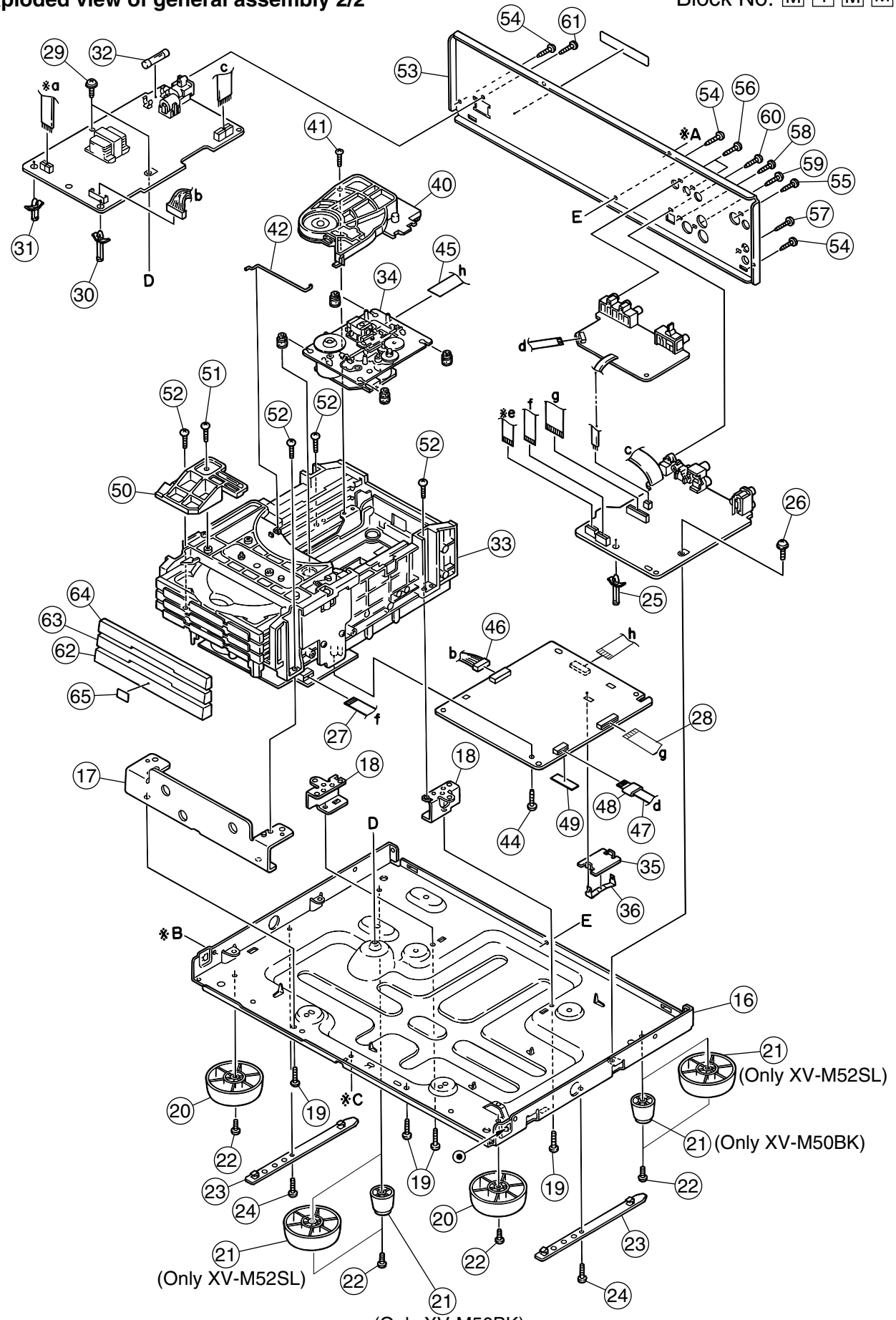
Block No. M 1 M M



Exploded view of general assembly and parts list

■ **Exploded view of general assembly 2/2**

Block No. M 1 M M



■ Parts list (General assembly)1/2

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LE10246-012A	FRONT PANEL	1		B,EN
		LE10246-010A	FRONT PANEL	1		UJ
		LE10246-013A	FRONT PANEL	1		UN,US,UW
	2	VJD5429-002SS	JVC MARK	1		EN,UN,US,UW,B
		VJD5429-001SS	JVC MARK	1		UJ
	3	LE20522-002A	PUSH BUTTON	1		B,EN,UN,US,UW
		LE20522-001A	PUSH BUTTON	1		UJ
	4	LE40745-001A	INDICATOR	1		
	5	LE20521-002A	PUSH BUTTON	1		B,EN,UN,US,UW
		LE20521-001A	PUSH BUTTON	1		UJ
	6	LE30889-001A	INDICATOR	1		
	7	LE20523-005A	WINDOW SCREEN	1		B,EN
		LE20523-004A	WINDOW SCREEN	1		UJ
		LE20523-006A	WINDOW SCREEN	1		UN,US,UW
	8	QYSDSF2608Z	SCREW	7		
	9	QUQ412-0920CM	FFC WIRE	1		
	10	QYSDSF2608Z	SCREW	2		
	11	LE30890-001A	BKT(MIC)	1		UN,US,UW
	12	QYSDSF2608Z	SCREW	4		UN,US,UW
	13	LE30924-001A	BKT(FRONT)	1		
	14	QYSDSF2608Z	SCREW	2		
	15	QYSDSG3008M	SCREW	3		
	16	E103006-007SM	CD CHASSIS BASE	1		
	17	LE30901-001A	BKT(MECHA-F)	1	FRONT	
	18	LE30902-001A	BKT(MECHA-R)	2	REAR	
	19	QYSBST3008Z	T.SCREW	4	MECHA BKT	
	20	QZF6018-003	FOOT	2	FRONT	B,EN,UN,US,UW
		QZF6018-001	FOOT	2	FRONT	UJ
	21	QZF6018-003	FOOT	2	REAR	B,EN,UN,US,UW
		E47227-036	FOOT	2	REAR	UJ
	22	QYSBST3008Z	T.SCREW	4	FOOT	
	23	LV31244-002A	SPACER	2	SAFETY	
	24	QYSDSG3008M	SCREW	2	SPACER	
	25	E310244-002	FASTENER	1	AUDIO CB	
	26	QYSBSGG3008E	T.SCREW	1	AUDIO CB	
	27	QUQ412-1020CM	FFC WIRE	1	CN702-C5	
	28	QUQ110-1716AM	FFC WIRE	1	CN701-C5	
	29	QYSBSGG3008E	T.SCREW	2	POWER CB	
	30	E310244-002	FASTENER	1	POWER CB	
	31	E310244-003	FASTNER	1	POWER CB	
⚠	32	QMF51E2-1R6-J1	FUSE	1	F 901	B,EN,UN,US,UW
⚠		QMF51U1-1R6-J8	FUSE	1	F 901	UJ
	33	-------	DVD 3CHANGER LO	1		
	34	-------	DVD TRAVERSE ME	1		
	35	LV41362-001A	HEAT SINK	1		
	36	LV41363-002A	HOLDER	1		
	40	VKS3703-00K	CLAMPER ASS'Y			

■ Parts list (General assembly)2/2

Block No. M1MM

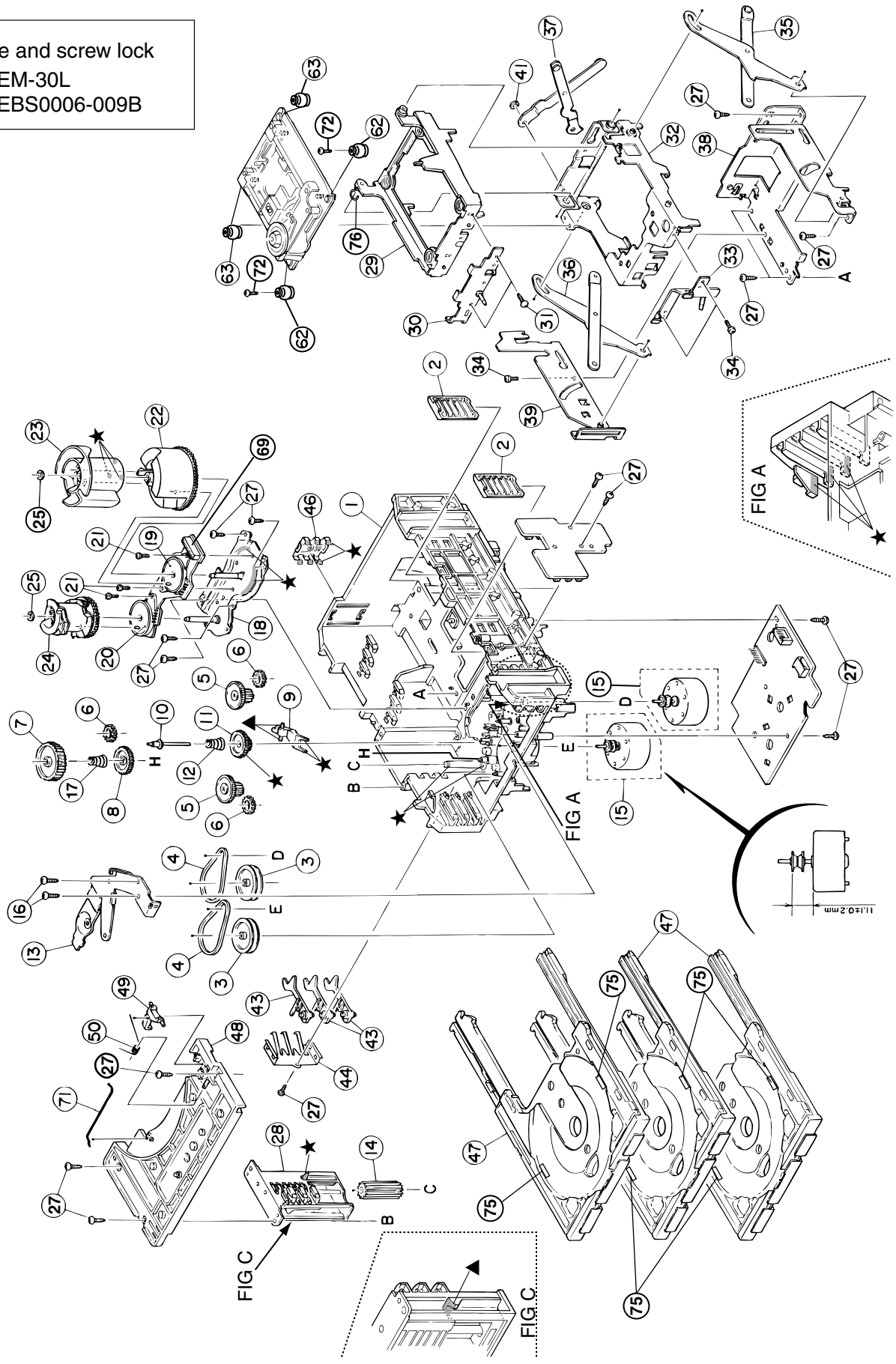
⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	41	QYSPST2606Z	SCREW	1		
	42	VKW5187-001	ROD	1		
	44	QYSBSF3008Z	SCREW	1	MODULE CB	
	45	QUQ105-4010AJ	FFC WIRE	1		
	46	QJJ015-091406	SIN CR C-CWIRE	1	TO CN961	
	47	QUQ110-0918AM	FFC WIRE	1	TO CN601	
	48	QQR1120-001	FERRITE CORE	1		B,EN,UN,US,UW
	49	LV30225-059A	SPACER	1		B,EN,UN,US,UW
	50	E309662-001SM	DISC STOPPER	1		
	51	QYSBSF3008Z	SCREW	1	DISC STOPP	
	52	QYSBST3008Z	T.SCREW	4	C3 MECHA	
	53	LV20821-031A	REAR PANEL	1		B,EN
		LV20821-029A	REAR PANEL	1		UJ
		LV20821-034A	REAR PANEL	1		UN,US
		LV20821-037A	REAR PANEL	1		UW
	54	QYSBSGY3008E	SPECIAL SCREW	3	REAR PANEL	
	55	QYSBSGY3008E	SPECIAL SCREW	1	VIDEO OUT	
	56	QYSBSGY3008E	SPECIAL SCREW	2	AV OUT	
	57	QYSBSGY3008E	SPECIAL SCREW	1	COMPU.LINK	
	58	QYSBSGY3008E	SPECIAL SCREW	1	COAXIAL	
	59	QYSBSGY3008E	SPECIAL SCREW	1	AUDIO OUT	
	60	QYSBSGY3008E	SPECIAL SCREW	1	OPTICAL OUT	
	61	QYSBSGY3008E	SPECIAL SCREW	1	AC OUTLET	
	62	LE20524-002A	FITTING(DISC1)	1	LOWER	B,EN,UN,US,UW
		LE20524-001A	FITTING(DISC1)	1	LOWER	UJ
	63	LE20525-002A	FITTING(DISC2)	1	CENTER	B,EN,UN,US,UW
		LE20525-001A	FITTING(DISC2)	1	CENTER	UJ
	64	LE20526-002A	FITTING(DISC3)	1	UPPER	B,EN,UN,US,UW
		LE20526-001A	FITTING(DISC3)	1	UPPER	UJ
	65	LE40757-202A	MARK	1	DVD-VIDEO	B,EN,UN,US,UW
		LE40757-201A	MARK	1	DVD-VIDEO	UJ
	66	LV40061-004A	KNOB	2		UN,US,UW
	67	LV20009-313A/S/	METAL COVER	1		B,EN,UN,US,UW
		LV20009-311A/S/	METAL COVER	1		UJ
	68	E406308-004	SPECIAL SCREW	4	M.C. SIDE	B,EN,UN,US,UW
		E406308-003	SPECIAL SCREW	4	M.C. SIDE	UJ
	69	QYSBSGY3008E	SPECIAL SCREW	2	M.C. REAR	

DVD changer mechanism assembly and parts list

Block No. M 2 M M

FLM-C5-3M

Grease and screw lock
★ EM-30L
▲ EBS0006-009B



■ Parts list (DVD changer mechanism)

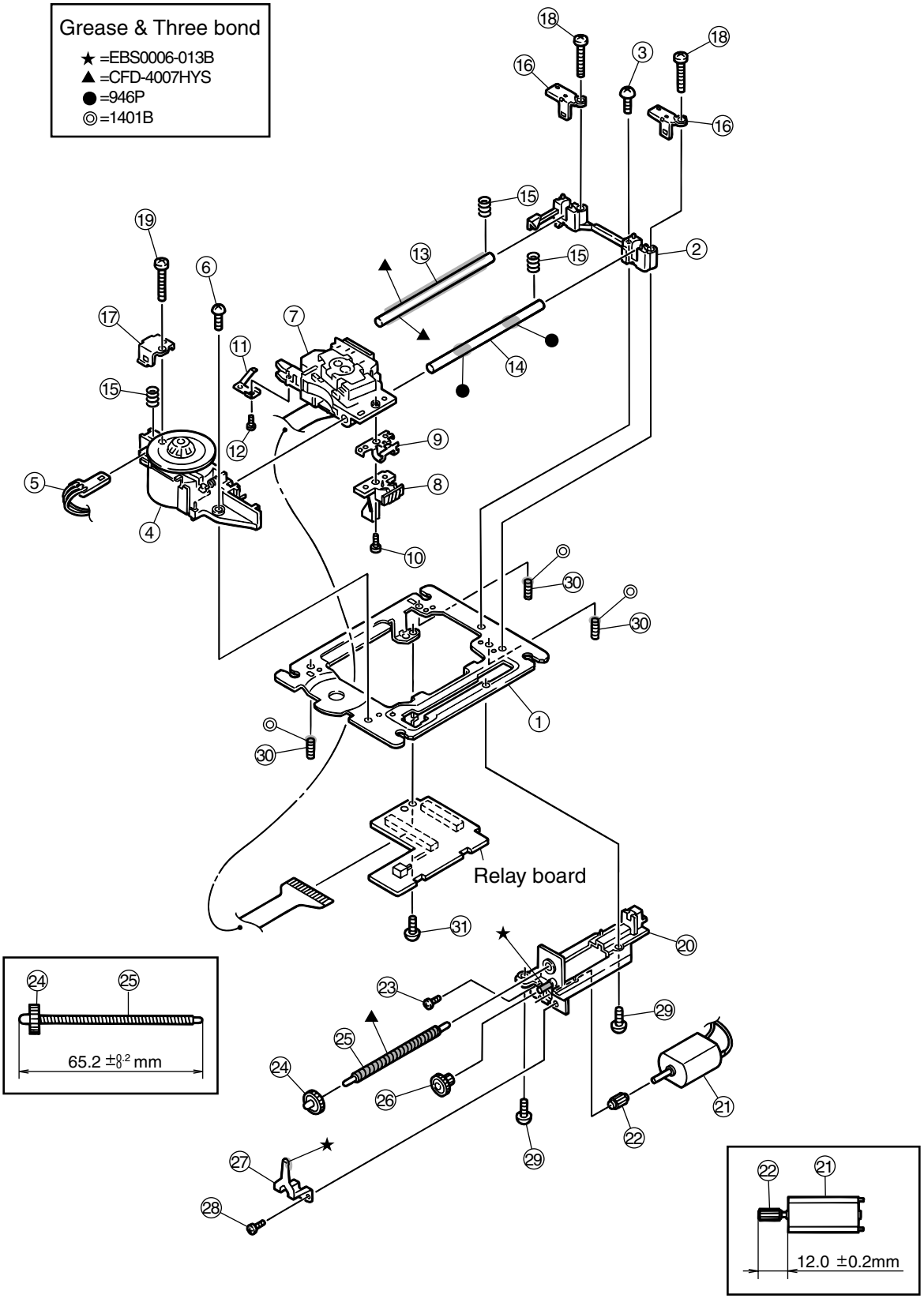
Block No. M2MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	VKS1144-003	CHASSIS	1		
	2	VKS3698-003	TRAY GUIDE	2		
	3	VKS5532-003	PULLEY GEAR	2		
	4	VKB3000-164	BELT	2		
	5	VKS5505-003	GEAR B	2		
	6	VKS5506-002	GEAR C	3		
	7	VKS5507-002	CROSS GEAR U	1		
	8	VKS5508-002	CROSS GEAR L	1		
	9	VKS5510-003	SELECT LEVER	1		
	10	VKH5769-001	S.G.SHAFT	1		
	11	VKS5511-002	SELECT GEAR	1		
	12	VKW5155-003	COMP.SPRING	1	FOR SELECT GEAR	
	13	VKM3846-002	GEAR BRACKET	1		
	14	VKS5509-002MM	CYLINDER GEAR	1		
	15	MSN-5D257A-SA2	D.C.MOTOR	2		
	16	QYSPSPD2616Z	SCREW	2	FOR MOTOR	
	17	LV40612-001A	COMP.SPRING	1		
	18	VKM3825-00AMM	C.G.BASE ASS'Y	1		
	19	VKZ3172-00ASS	CAM SW. R ASS'Y	1		
	20	VKZ3173-00ASS	CAM SW. L ASS'Y	1		
	21	QYSPST2606Z	SCREW	3	FOR CAM SW.	
	22	VKS2263-002MM	CAM R1	1		
	23	VKS2264-002MM	CAM R2	1		
	24	VKS2265-002MM	CAM GEAR L	1		
	25	WDL316050MM	SLIT WASHER	2		
	27	QYSBSF2608Z	T.SCREW	16	FOR C.GEAR BASE	
	28	VKS3702-00FMM	DRIVE UNIT	1		
	29	LV20466-001A	MECHA HOLDER A	1		
	30	VKL7767-00C	BRAKET ASSY	1		
	31	QYSBSF2606Z	SCREW	2	FOR BRACKET	
	32	VKM3860-00B	MCHA HOLDER ASS	1		
	33	VKL7802-00C	M.HOLDER C AS'Y	1		
	34	QYSDST2604Z	SCREW	3	FOR M.HOLDER C	
	35	VKL7810-00A	LIFTER ASS'Y R	1		
	36	VKL7811-00A	LIFTER ASS'Y L	1		
	37	VKL7812-00A	LIFTER ASS'Y H	1		
	38	VKL2732-002	LIFTER BASE	1		
	39	VKM3857-001	LIFTER BRACKET	1		
	41	WDL266035-2	SLIT WASHER	1		
	43	VKS5514-002MM	LOCK LEVER	3		
	44	VKY3133-002MM	RETURN SPRING	1		
	46	VKY3134-003MM	CLICK SPRING	1		
	47	VKS2252-00F	TRAY ASS'Y	3		
	48	VKS2250-003	TOP BRACKET	1		
	49	VKS5515-002	S.TRAY STOPPER	1		
	50	VKW5156-004	TORSION SPRING	1		
	62	LV41120-001A	INSULATOR	2		
	63	LV41120-002A	INSULATOR	2		
	69	QGB2012J1-10	CONNECTOR	1		
	71	VKW5187-001	ROD	1		
	72	LV41119-001A	SPECIAL SCREW	2		
	75	LV41568-002A	SHEET	6		
	76	LV41571-001A	SPACER	1		

DVD Mechanism assembly and parts list

Block No. M 3 M M

FXL-V62-1M



■ Parts list (DVD mechanism)

Block No.M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV20638-001A	MECHA BASE	1		
	2	LV20635-001A	SHAFT HOLDER	1		
	3	QYSBST2606M	T.SCREW	1		
	4	VDG1099001TSVME	SP.MOTOR ASS'Y	1		
	5	QUM193-08B2B2	PARA RIBON WIRE	1		
	6	QYSBST2606M	T.SCREW	1	FOR S.BASE&M.BASE	
	7	OPTIMA-2010B1	DVD PICKUP	1		
	8	LV31670-001A	SWITCH ACTUATOR	1		
	9	LV31666-002A	LEAD SPRING	1		
	10	QYSPSGT2040M	SCREW	1		
	11	LV31743-002A	P.U.SPRING	1		
	12	QYSPSGT1416M	MINI SCREW	1		
	13	LV41121-002A	SHAFT	1	MAIN SHAFT	
	14	LV41121-002A	SHAFT	1	SUB SHAFT	
	15	LV41732-001A	SPRING	3		
	16	LV31669-001A	SHAFT STOPPER R	2		
	17	LV31668-001A	SHAFT STOPPER F	1		
	18	QYSPST2614M	SCREW	2	FOR STOPPER R	
	19	QYSPST2614M	SCREW	1	FOR STOPPER F	
	20	LV31746-003A	FEED HOLDER ASY	1		
	21	QAR0127-001	FEED MOTOR	1		
	22	LV41510-001A	FEED GEAR T	1		
	23	QYSPSPU2040M	SCREW	1	FOR FEED MOTOR	
	24	LV41512-001A	FEED GEAR E	1		
	25	LV41517-001A	LEAD SCREW	1		
	26	LV41511-002A	FEED GEAR M	1		
	27	LV31667-001A	THRUST SPRING	1		
	28	QYSPSPU2040M	SCREW	1	FOR FEED MOTOR	
	29	QYSBST2606M	T.SCREW	2	FOR FEED HOLDER	
	30	QYYASPF2608N	HEX SCREW	3	FOR TILT ADJUST	
	31	QYSBST2606M	T.SCREW	1	FOR PW BOARD	

Electrical parts list

■ **Electrical parts list (Main board)**

Block No. 01

⚠	Item	Parts number	Parts name	Remarks	Area
	BK801	E308192-001	FL HOLDER		
	C 601	NCS31HJ-471X	C CAPACITOR		
	C 603	NCS31HJ-221X	C.CAPA. C.M		
	C 604	NCS31HJ-470X	C.CAPA. C.M		
	C 609	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 611	NCS31HJ-471X	C CAPACITOR		
	C 613	NCS31HJ-221X	C.CAPA. C.M		
	C 614	NCS31HJ-470X	C.CAPA. C.M		
	C 619	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 621	NCS31HJ-471X	C CAPACITOR		
	C 623	NCS31HJ-221X	C.CAPA. C.M		
	C 624	NCS31HJ-470X	C.CAPA. C.M		
	C 629	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 631	NCS31HJ-471X	C CAPACITOR		
	C 633	NCS31HJ-221X	C.CAPA. C.M		
	C 634	NCS31HJ-470X	C.CAPA. C.M		
	C 639	NCB31CK-104X	C CAPACITOR		
	C 649	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 659	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 685	NCS31HJ-471X	C CAPACITOR		B,EN
	C 686	NCS31HJ-471X	C CAPACITOR		B,EN
	C 694	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	B,EN
	C 700	NCS31HJ-101X	C.CAPA. C.M		
	C 701	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 702	NCB31CK-104X	C CAPACITOR		
	C 703	QETN1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 705	NCB31CK-104X	C CAPACITOR		
	C 706	QFVF1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C 707	QETN0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 709	NCS31HJ-331X	C.CAPA. C.M		
	C 710	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C 711	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 714	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 716	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 717	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 718	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 719	NCS31HJ-101X	C.CAPA. C.M		UN,US,UW
	C 720	NCB31CK-104X	C CAPACITOR		
	C 725	QETN1CM-477Z	E CAPACITOR	470MF 20% 16V	
	C 726	QETN1CM-227Z	E CAPACITOR	220MF 20% 16V	
	C 727	QETN1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 728	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 730	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C 731	NCB31HK-103X	C CAPACITOR		
	C 735	NCB31CK-104X	C CAPACITOR		
	C 736	NCB31CK-104X	C CAPACITOR		
	C 737	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	B,EN
	C 738	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	B,EN
	C 739	QFN31HJ-822Z	M CAPACITOR	8200PF 5% 50V	UN,US,UW
	C 740	QFN31HJ-102Z	M CAPACITOR	1000PF 5% 50V	
	C 741	QFN31HJ-221Z	M.CAPA. I.M	220PF 5% 50V	
	C 742	QFN31HJ-333Z	M.CAPACITOR	.033MF 5% 50V	
	C 744	QFN31HJ-681Z	M.CAPA. I.M	680PF 5% 50V	
	C 745	QFN31HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 746	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 747	QFN31HJ-222Z	M CAPACITOR	2200PF 5% 50V	
	C 749	QFN31HJ-822Z	M CAPACITOR	8200PF 5% 50V	UN,US,UW
	C 750	QFN31HJ-102Z	M CAPACITOR	1000PF 5% 50V	
	C 751	QFN31HJ-221Z	M.CAPA. I.M	220PF 5% 50V	
	C 752	QFN31HJ-333Z	M.CAPACITOR	.033MF 5% 50V	
	C 754	QFN31HJ-681Z	M.CAPA. I.M	680PF 5% 50V	
	C 755	QFN31HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 756	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 757	QFN31HJ-222Z	M CAPACITOR	2200PF 5% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C 761	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 762	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 771	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 772	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 789	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 797	NCB31HK-103X	C CAPACITOR		
	C 799	NCB31HK-103X	C CAPACITOR		UN,US,UW
	C 801	NCB31CK-104X	C CAPACITOR		
	C 802	QEKC1AM-476Z	E.CAPACITOR	47MF 20% 10V	
	C 811	NCB31CK-104X	C CAPACITOR		
	C 812	QEKC0JM-476Z	E.CAPACITOR	47MF 20% 6.3V	
	C 813	NCB31CK-104X	C CAPACITOR		
	C 814	NCS31HJ-220X	C CAPACITOR		
	C 821	QEKC1HM-475Z	E.CAPACITOR	4.7MF 20% 50V	
	C 851	NCS31HJ-331X	C.CAPA. C.M		UN,US,UW
	C 852	NCS31HJ-331X	C.CAPA. C.M		UN,US,UW
	C 853	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	UN,US,UW
	C 854	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	UN,US,UW
	C 855	NCS31HJ-561X	C CAPACITOR		UN,US,UW
	C 856	NCS31HJ-561X	C CAPACITOR		UN,US,UW
	C 857	NCS31HJ-220X	C CAPACITOR		UN,US,UW
	C 858	NCS31HJ-220X	C CAPACITOR		UN,US,UW
	C 859	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V	UN,US,UW
	C 860	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V	UN,US,UW
	C 861	NCB31CK-104X	C CAPACITOR		UN,US,UW
	C 862	NCB31CK-104X	C CAPACITOR		UN,US,UW
	C 863	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	UN,US,UW
	C 864	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	UN,US,UW
	C 865	NCB31CK-104X	C CAPACITOR		UN,US,UW
	C 871	QEKC1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	UN,US,UW
	C 872	NCS31HJ-101X	C.CAPA. C.M		UN,US,UW
	C 873	NCS31HJ-820X	C CAPACITOR		UN,US,UW
	C 875	NCB31CK-473X	C CAPACITOR		UN,US,UW
	C 876	NCB31CK-473X	C CAPACITOR		UN,US,UW
	C 877	QEKC1CM-476Z	E.CAPACITOR	47MF 20% 16V	UN,US,UW
	C 878	QEKC1CM-476Z	E.CAPACITOR	47MF 20% 16V	UN,US,UW
⚠	C 902	QFZ9075-683	M CAPACITOR	.068MF	
	C 905	QCZ9079-102	C CAPACITOR	1000PF	
	C 906	QCZ9079-102	C CAPACITOR	1000PF	
⚠	C 907	QEZ0522-826	E.CAPACITOR	82MF	B,EN
⚠	C 907	QEZ0522-127	E.CAPACITOR	120MF	UJ,UN,US,UW
	C 908	NZZ000000000500	C CAPACITOR		
	C 909	NZZ000000000499	C CAPACITOR		
	C 910	NCS31HJ-221X	C.CAPA. C.M		
	C 913	NZZ000000000499	C CAPACITOR		
	C 914	QEZ0532-396Z	E CAPACITOR	39MF	
	C 915	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C 916	QCZ9079-332	C CAPACITOR	3300PF	
	C 917	NCS31HJ-101X	C.CAPA. C.M		UJ,UN,US,UW
	C 918	QCFB1HZ-104Y	C CAPACITOR	.10MF +80:-20%	
	C 931	NCB31CK-223X	C CAPACITOR		
	C 932	NCS31HJ-101X	C.CAPA. C.M		UN,US,UW
	C 951	NCS31HJ-101X	C.CAPA. C.M		
	C 952	NCS31HJ-101X	C.CAPA. C.M		
	C 953	NCS31HJ-101X	C.CAPA. C.M		
	C 954	NCS31HJ-101X	C.CAPA. C.M		
	C 956	NCS31HJ-101X	C.CAPA. C.M		
	C 957	NCS31HJ-101X	C.CAPA. C.M		
	C 960	QEZ0529-826Z	E CAPACITOR	82MF	
	C 961	NCB31CK-104X	C CAPACITOR		
	C 962	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 963	QEZ0533-396Z	E CAPACITOR	39MF	
	C 964	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C 965	QEZ0528-108	E CAPACITOR	1000MF	

■ **Electrical parts list (Main board)**

Block No. 01

⚠	Item	Parts number	Parts name	Remarks	Area
	C 966	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C 967	NCB31CK-104X	C CAPACITOR		
	C 968	NCB31CK-104X	C CAPACITOR		
	C 969	QETN1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 970	NCB31CK-104X	C CAPACITOR		
	C 973	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 974	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 976	NCB31CK-104X	C CAPACITOR		
	C 977	NCB31CK-104X	C CAPACITOR		
	C 978	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 979	QEZ0530-827	E CAPACITOR	820MF	
	C 981	NCB31CK-104X	C CAPACITOR		
	C 982	QEZ0531-567	E CAPACITOR	560MF	
	C 984	QETN1EM-227Z	E CAPACITOR	220MF 20% 25V	
	C 987	QEZ0532-187Z	E CAPACITOR	180MF	
	C 989	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 992	QETN1HM-474Z	E CAPACITOR	.47MF 20% 50V	
	C 993	NCS31HJ-101X	C.CAPA. C.M		
	C 994	NCB31EK-223X	C CAPACITOR		
	C 995	QETN1CM-227Z	E CAPACITOR	220MF 20% 16V	
	C 996	QETN1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 997	QETN1CM-227Z	E CAPACITOR	220MF 20% 16V	
	C1701	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1702	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1703	NCS31HJ-151X	C CAPACITOR		
	C1704	NCS31HJ-101X	C.CAPA. C.M		
	C1705	NCS31HJ-101X	C.CAPA. C.M		
	C7391	QENC1EM-475Z	NP E.CAPA I.M	4.7MF 20% 25V	UN,US,UW
	C7491	QENC1EM-475Z	NP E.CAPA I.M	4.7MF 20% 25V	UN,US,UW
	CN601	QGF1016F3-09	FFC/FPC CONNE		
	CN701	QGF1016C1-17	CONNECTOR		
	CN702	QGF1205C1-10	CONNECTOR		
	CN703	QGF1205C1-09	CONNECTOR		
	CN704	QGD2501C1-03Z	SOCKET		
	CN705	QGD2501C1-03Z	SOCKET		B,EN
	CN801	QGF1210G1-09	CONNECTOR		
	CN951	QGD2501C1-04Z	SOCKET		
	CN952	QGD2501C1-04Z	SOCKET		
	CN961	QGA2001C1-09	9P PLUG ASSY		
	CN971	QGD2501C1-05Z	SOCKET I.M		
	CN981	QGD2501C1-04Z	SOCKET		UN,US,UW
	CP951	ICP-N10-T	ICP		
	CP952	ICP-N5-T	ICP		
	D 609	1SS133-T2	SI DIODE IM		
	D 619	1SS133-T2	SI DIODE IM		
	D 629	1SS133-T2	SI DIODE IM		
	D 639	1SS133-T2	SI DIODE IM		
	D 701	1SS133-T2	SI DIODE IM		
	D 702	MTZJ3.3B-T2	ZENER DIODE IM		
	D 709	1SS133-T2	SI DIODE IM		
	D 791	1SS133-T2	SI DIODE IM		
	D 792	1SS133-T2	SI DIODE IM		
	D 801	SLR-342VC-T	LED		
	D 821	SLR-342MC-T	LED		
	D 822	SLR-342MC-T	LED		
	D 823	SLR-342MC-T	LED		
	D 831	1SS133-T2	SI DIODE IM		
	D 832	1SS133-T2	SI DIODE IM		
	D 833	1SS133-T2	SI DIODE IM		
⚠	D 901	S1WB/A/60-4101	BRIDGE DIODE		
⚠	D 902	F1T4-T2	FR DIODE		
⚠	D 903	F1T4-T2	FR DIODE		
⚠	D 904	F1T4-T2	FR DIODE		
⚠	D 908	F1T4-T2	FR DIODE		

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	D 910	F1T4-T2	FR DIODE		
	D 911	1SS133-T2	SI DIODE IM		
	D 950	MTZJ22C-T2	ZENER DIODE		
	D 951	F1T4-T2	FR DIODE		
	D 952	F1T4-T2	FR DIODE		
	D 953	FMB-24	FUSEIODE		
	D 954	F1T4-T2	FR DIODE		
	D 956	F1T4-T2	FR DIODE		
	D 957	F1T4-T2	FR DIODE		
	D 960	MTZJ2.0A-T2	ZENER DIODE		
	D 970	1SS133-T2	SI DIODE IM		
	D 972	1SS133-T2	SI DIODE IM		
	D 973	1SS133-T2	SI DIODE IM		
	D 974	1SS133-T2	SI DIODE IM		
	D 991	MTZJ5.1A-T2	ZENER DIODE		
	DI801	QLF0064-001	FL TUBE		
	EP711	QNZ0136-001Z	EARTH PLATE		
	EP951	QNZ0136-001Z	EARTH PLATE		
	FC901	QNG0003-001Z	FUSE CLIP		
	FC902	QNG0003-001Z	FUSE CLIP		
	FL901	LV41385-010A	FUSE LABEL		
	FW601	QUM133-10DGZ4	PARA RIBON WIRE	TO CN704	
	FW602	QUM024-26Z3Z3	PARA RIBON WIRE		B,EN
	FW603	QUM133-12DGZ4	PARA RIBON WIRE		B,EN
	FW701	QUM138-26DGZ4	PARA RIBON WIRE	TO CN951&CN952	
	FW801	QUM135-22DGZ4	PARA RIBON WIRE	TO CN971&CN972	
	FW803	QUM134-17Z4Z4	PARA RIBON WIRE		
	FW851	QUM135-13Z4Z4	PARA RIBON WIRE	TO FW871	UN,US,UW
	FW872	QUM134-24DGZ4	PARA RIBON WIRE	TO CN981	UN,US,UW
	HS901	E70306-002	HEAT SINK		
	IC701	MN101C49GGJ1	IC	SYSTEM MICOM	
	IC702	IC-PST9140-T	IC		
	IC703	MN35505-X	IC C M		
	IC704	TC7SH08F-X	IC C.M .		
	IC711	BA41W12ST-V5	IC		
	IC741	NJM4580M-X	IC		
	IC751	NJM4580M-X	IC		
	IC801	GP1U271X	RM RECIVER		
	IC802	M35500BGP	FL DRIVER		
	IC851	NJM4580L	IC		UN,US,UW
	IC871	NJM4580L	IC		UN,US,UW
⚠	IC901	STR-G6651	IC		
	IC951	PQ05RD21	IC		
	IC953	NJM78M05FA	IC		
	J 601	QNN0317-001	PIN JACK		UJ,UN,US,UW
	J 602	QNZ0430-001	AV JACK		UJ,UN,US,UW
	J 691	QNZ0516-001	RGB CONNECTOR		B,EN
	J 692	QNZ0430-001	AV JACK		B,EN
	J 701	QNN0170-002	PIN JACK	AUDIO OUT	
	J 702	QNS0089-001	3.5 JACK	AV COMPULINK	
	J 703	GP1FA550TZ	OPT TRANSMITTER	OPT DIGITAL OUT	
	J 704	QNN0347-001	PIN JACK	COAXIAL DIGITAL	
	J 851	QNS0156-001	6.3 JACK	MIC1	UN,US,UW
	J 852	QNS0157-001	6.3 JACK	MIC2	UN,US,UW
	K 601	QQR1183-001Z	F.BEADS I.M		
	K 603	QQR1183-001Z	F.BEADS I.M		
	K 701	NQR0227-004X	FERRITE BEADS		
	K 702	NQR0227-004X	FERRITE BEADS		
	K 703	NQR0227-004X	FERRITE BEADS		
	K 704	NQR0227-004X	FERRITE BEADS		
	K 705	NQR0227-004X	FERRITE BEADS		
	K 706	NQR0227-004X	FERRITE BEADS		
	K 707	NRSA63J-0R0X	MG RESISTOR		
	K 708	NQR0227-004X	FERRITE BEADS		

■ **Electrical parts list (Main board)**

Block No. 01

⚠	Item	Parts number	Parts name	Remarks	Area
	K 709	NQR0227-004X	FERRITE BEADS		
	K 710	NQR0227-004X	FERRITE BEADS		
	K 711	NQR0227-004X	FERRITE BEADS		
	K 951	QQR1183-001Z	F.BEADS I.M		UN,US,UW
	K 952	QQR1183-001Z	F.BEADS I.M		UN,US,UW
	K 953	QQR1183-001Z	F.BEADS I.M		UN,US,UW
	K 954	QQR1183-001Z	F.BEADS I.M		UN,US,UW
	L 601	QQL231K-5R6Y	INDUCTOR I.M		
	L 602	QQL231K-2R2Y	INDUCTOR I.M		
	L 611	QQL231K-5R6Y	INDUCTOR I.M		
	L 612	QQL231K-2R2Y	INDUCTOR I.M		
	L 621	QQL231K-5R6Y	INDUCTOR I.M		
	L 622	QQL231K-2R2Y	INDUCTOR I.M		
	L 631	QQL231K-5R6Y	INDUCTOR I.M		
	L 632	QQL231K-2R2Y	INDUCTOR I.M		
	L 709	QQR1183-001Z	F.BEADS I.M		
⚠	L 901	QQR1194-001	LINE FILTER		
	L 951	QQL244K-R22Z	INDUCTOR		
	L 952	QQL26AK-220Z	INDUCTOR		
	L 955	QQL26AK-220Z	INDUCTOR		
	L 957	QQL244K-100Z	INDUCTOR		
	L 959	QQL244K-100Z	INDUCTOR		
⚠	P 901	QNC0081-001	AC INLET		
⚠	PC901	PC123Y02	IC(PHOTO COUPLE		
⚠	PC902	PC123Y02	IC(PHOTO COUPLE		
	PW852	QUB220-15HPDM	SIN TWIST WIRE		UN,US,UW
	Q 601	KTA1267/YG/-T	TRANSISTOR		
	Q 611	KTA1267/YG/-T	TRANSISTOR		
	Q 621	KTA1267/YG/-T	TRANSISTOR		
	Q 631	KTA1267/YG/-T	TRANSISTOR		
	Q 691	DTC114EKA-X	TRANSISTOR		B,EN
	Q 692	DTC114EKA-X	TRANSISTOR		B,EN
	Q 694	2SD2144S/VW/-T	TRANSISTOR		B,EN
	Q 695	2SD2144S/VW/-T	TRANSISTOR		B,EN
	Q 696	DTA114EKA-X	DIGITAL.TRANSIS		B,EN
	Q 697	KRC102S-X	DIGITAL.TR		B,EN
	Q 709	KRC107S-X	DIGITAL.TR		
	Q 742	DTC114TSA-T	D.TRANSISTOR		UN,US,UW
	Q 743	2SD2144S/VW/-T	TRANSISTOR		
	Q 752	DTC114TSA-T	D.TRANSISTOR		UN,US,UW
	Q 753	2SD2144S/VW/-T	TRANSISTOR		
	Q 755	DTA144EKA-X	TRANSISTOR		UN,US,UW
	Q 791	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 821	DTC124EKA-X	TRANSISTOR		
	Q 822	DTC124EKA-X	TRANSISTOR		
	Q 823	DTC124EKA-X	TRANSISTOR		
	Q 951	KTD863/Y/-T	TRANSISTOR		
	Q 952	KRA104S-X	DIGITAL.TR		
	Q 953	KTA1267/YG/-T	TRANSISTOR		
	Q 964	2SB1184/QR/-X	TRANSISTOR		
	Q 965	KTC3199/GL/-T	TRANSISTOR		
	Q 966	KTA1267/YG/-T	TRANSISTOR		
	Q 991	KTC3199/GL/-T	TRANSISTOR		
	R 422	NRSA63J-0R0X	MG RESISTOR		UW
	R 423	NRSA63J-0R0X	MG RESISTOR		UW
	R 601	NRSA63J-151X	MG RESISTOR		
	R 602	NRSA63J-0R0X	MG RESISTOR		
	R 603	NRSA63J-151X	MG RESISTOR		
	R 604	NRSA63J-0R0X	MG RESISTOR		
	R 605	NRSA63J-221X	MG RESISTOR		
	R 606	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R 609	NRSA63J-680X	MG RESISTOR		B,EN
	R 609	NRSA63J-820X	MG RESISTOR		UJ,UN,US,UW
	R 611	NRSA63J-151X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R 612	NRSA63J-0R0X	MG RESISTOR		
	R 613	NRSA63J-151X	MG RESISTOR		
	R 614	NRSA63J-0R0X	MG RESISTOR		
	R 615	NRSA63J-221X	MG RESISTOR		
	R 616	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R 619	NRSA63J-680X	MG RESISTOR		B,EN
	R 619	NRSA63J-820X	MG RESISTOR		UJ,UN,US,UW
	R 621	NRSA63J-151X	MG RESISTOR		
	R 622	NRSA63J-0R0X	MG RESISTOR		
	R 623	NRSA63J-151X	MG RESISTOR		
	R 624	NRSA63J-0R0X	MG RESISTOR		
	R 625	NRSA63J-221X	MG RESISTOR		
	R 629	NRSA63J-750X	MG RESISTOR		
	R 631	NRSA63J-151X	MG RESISTOR		
	R 632	NRSA63J-0R0X	MG RESISTOR		
	R 633	NRSA63J-151X	MG RESISTOR		
	R 634	NRSA63J-0R0X	MG RESISTOR		
	R 635	NRSA63J-221X	MG RESISTOR		
	R 636	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R 639	NRSA63J-750X	MG RESISTOR		
	R 649	NRSA63J-680X	MG RESISTOR		
	R 650	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R 659	NRSA63J-680X	MG RESISTOR		
	R 681	QRE141J-151Y	C RESISTOR	150 5% 1/4W	B,EN
	R 685	NRSA63J-151X	MG RESISTOR		B,EN
	R 686	NRSA63J-151X	MG RESISTOR		B,EN
	R 687	NRSA63J-103X	MG RESISTOR		B,EN
	R 688	NRSA63J-103X	MG RESISTOR		B,EN
	R 694	NRSA63J-680X	MG RESISTOR		B,EN
	R 696	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	B,EN
	R 697	NRSA63J-821X	MG RESISTOR		B,EN
	R 698	NRSA63J-123X	MG RESISTOR		B,EN
	R 701	NRSA63J-102X	MG RESISTOR		
	R 702	NRSA63J-472X	MG RESISTOR		
	R 703	NRSA63J-105X	MG RESISTOR		
	R 704	NRSA63J-102X	MG RESISTOR		
	R 705	NRSA63J-2R2X	MG RESISTOR		
	R 706	NRSA63J-104X	MG RESISTOR		
	R 708	NRSA63J-101X	MG RESISTOR		
	R 709	NRSA63J-103X	MG RESISTOR		
	R 711	NRSA63J-100X	MG RESISTOR		
	R 713	NRSA63J-220X	MG RESISTOR		B,EN,UN,US,UW
	R 713	NRSA63J-100X	MG RESISTOR		UJ
	R 715	NRSA63J-220X	MG RESISTOR		B,EN,UN,US,UW
	R 715	NRSA63J-100X	MG RESISTOR		UJ
	R 717	NRSA63J-100X	MG RESISTOR		
	R 718	NQR0227-004X	FERRITE BEADS		
	R 719	NQR0227-004X	FERRITE BEADS		
	R 720	NQR0227-004X	FERRITE BEADS		
	R 721	NRSA63J-471X	MG RESISTOR		
	R 723	NRSA63J-471X	MG RESISTOR		
	R 724	NRSA63J-471X	MG RESISTOR		
	R 725	NRSA63J-471X	MG RESISTOR		
	R 728	NRSA63J-471X	MG RESISTOR		
	R 729	NRSA63J-471X	MG RESISTOR		
	R 731	NRSA63J-332X	MG RESISTOR		
	R 740	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R 741	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R 742	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 743	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 744	NRSA63J-362X	MG RESISTOR		
	R 745	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 746	NRSA63J-332X	MG RESISTOR		
	R 747	NRSA63J-362X	MG RESISTOR		

■ **Electrical parts list (Main board)**

Block No. 01

⚠	Item	Parts number	Parts name	Remarks	Area
	R 748	NRSA63J-112X	MG RESISTOR		
	R 750	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R 751	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R 752	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 753	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 754	NRSA63J-362X	MG RESISTOR		
	R 755	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 756	NRSA63J-332X	MG RESISTOR		
	R 757	NRSA63J-362X	MG RESISTOR		
	R 758	NRSA63J-112X	MG RESISTOR		
	R 761	NRSA63J-112X	MG RESISTOR		
	R 762	NRSA63J-681X	MG RESISTOR		B,EN,UJ
	R 762	NRSA63J-562X	MG RESISTOR		UN,US,UW
	R 763	NRSA63J-222X	MG RESISTOR		UN,US,UW
	R 764	NRSA63J-183X	MG RESISTOR		
	R 765	NRSA63J-561X	MG RESISTOR		B,EN,UJ
	R 765	NRSA63J-112X	MG RESISTOR		UN,US,UW
	R 766	NRSA63J-273X	MG RESISTOR		
	R 767	NRSA63J-101X	MG RESISTOR		
	R 768	NRSA63J-103X	MG RESISTOR		
	R 769	NRSA63J-362X	MG RESISTOR		
	R 771	NRSA63J-112X	MG RESISTOR		
	R 772	NRSA63J-681X	MG RESISTOR		B,EN,UJ
	R 772	NRSA63J-562X	MG RESISTOR		UN,US,UW
	R 773	NRSA63J-222X	MG RESISTOR		UN,US,UW
	R 774	NRSA63J-183X	MG RESISTOR		
	R 775	NRSA63J-561X	MG RESISTOR		B,EN,UJ
	R 775	NRSA63J-112X	MG RESISTOR		UN,US,UW
	R 776	NRSA63J-273X	MG RESISTOR		
	R 777	NRSA63J-101X	MG RESISTOR		
	R 778	NRSA63J-103X	MG RESISTOR		
	R 780	NRSA63J-112X	MG RESISTOR		B,EN
	R 781	NRSA63J-112X	MG RESISTOR		B,EN
	R 782	NRSA63J-221X	MG RESISTOR		
	R 783	NRSA63J-221X	MG RESISTOR		
	R 784	NRSA63J-112X	MG RESISTOR		UN,US,UW
	R 786	NRSA63J-333X	MG RESISTOR		
	R 787	NRSA63J-333X	MG RESISTOR		UN,US,UW
	R 788	NRSA63J-222X	MG RESISTOR		
	R 789	NRSA63J-222X	MG RESISTOR		
	R 790	NRSA63J-112X	MG RESISTOR		B,EN
	R 791	NRSA63J-112X	MG RESISTOR		B,EN
	R 792	NRSA63J-221X	MG RESISTOR		
	R 793	NRSA63J-221X	MG RESISTOR		
	R 794	NRSA63J-112X	MG RESISTOR		UN,US,UW
	R 795	NRSA63J-472X	MG RESISTOR		B,EN,UN,US,UW
	R 796	NRSA63J-472X	MG RESISTOR		
	R 797	NRSA63J-473X	MG RESISTOR		
	R 799	NRSA63J-473X	MG RESISTOR		UN,US,UW
	R 800	NRSA63J-362X	MG RESISTOR		
	R 802	NRSA63J-222X	MG RESISTOR		
	R 803	NRSA63J-222X	MG RESISTOR		
	R 806	NRSA63J-102X	MG RESISTOR		
	R 807	NRSA63J-102X	MG RESISTOR		
	R 808	NRSA63J-102X	MG RESISTOR		
	R 809	NRSA63J-102X	MG RESISTOR		
	R 810	NRSA63J-102X	MG RESISTOR		
	R 811	NRSA63J-102X	MG RESISTOR		
	R 812	NRSA63J-102X	MG RESISTOR		
	R 813	NRSA63J-102X	MG RESISTOR		
	R 825	NRSA63J-271X	MG RESISTOR		
	R 826	NRSA63J-271X	MG RESISTOR		
	R 827	NRSA63J-271X	MG RESISTOR		
	R 840	NRSA63J-431X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R 841	NRSA63J-681X	MG RESISTOR		
	R 842	NRSA63J-112X	MG RESISTOR		
	R 843	NRSA63J-222X	MG RESISTOR		
	R 844	NRSA63J-682X	MG RESISTOR		
	R 845	NRSA63J-431X	MG RESISTOR		
	R 846	NRSA63J-681X	MG RESISTOR		
	R 847	NRSA63J-112X	MG RESISTOR		
	R 848	NRSA63J-222X	MG RESISTOR		
	R 851	NRSA63J-473X	MG RESISTOR		UN,US,UW
	R 852	NRSA63J-473X	MG RESISTOR		UN,US,UW
	R 853	NRSA63J-103X	MG RESISTOR		UN,US,UW
	R 854	NRSA63J-103X	MG RESISTOR		UN,US,UW
	R 855	NRSA63J-102X	MG RESISTOR		UN,US,UW
	R 856	NRSA63J-102X	MG RESISTOR		UN,US,UW
	R 857	NRSA63J-182X	MG RESISTOR		UN,US,UW
	R 858	NRSA63J-182X	MG RESISTOR		UN,US,UW
	R 859	NRSA63J-223X	MG RESISTOR		UN,US,UW
	R 860	NRSA63J-223X	MG RESISTOR		UN,US,UW
	R 861	NRSA63J-221X	MG RESISTOR		UN,US,UW
	R 862	NRSA63J-221X	MG RESISTOR		UN,US,UW
	R 871	NRSA63J-471X	MG RESISTOR		UN,US,UW
	R 872	NRSA63J-471X	MG RESISTOR		UN,US,UW
	R 873	NRSA63J-682X	MG RESISTOR		UN,US,UW
	R 874	NRSA63J-682X	MG RESISTOR		UN,US,UW
	R 875	NRSA63J-563X	MG RESISTOR		UN,US,UW
	R 877	QRE141J-221Y	C RESISTOR	220 5% 1/4W	UN,US,UW
	R 878	QRE141J-221Y	C RESISTOR	220 5% 1/4W	UN,US,UW
	R 900	NRSA63J-221X	MG RESISTOR		
	R 901	QRL01DJ-683X	OMF RESISTOR	68K 5% 1/1W	
	R 903	QRE141J-270Y	C RESISTOR	27 5% 1/4W	
	R 904	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 905	QRL027J-683	OMF RESISTOR	68K 5% 1/2W	
	R 906	QRE141J-681Y	C RESISTOR	680 5% 1/4W	
	R 907	QRT022J-R47	OMF RESISTOR	5% 1/2W	
	R 908	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 910	QRE141J-754Y	C RESISTOR	750K 5% 1/4W	
	R 911	QRE141J-754Y	C RESISTOR	750K 5% 1/4W	
	R 952	NRSA63J-103X	MG RESISTOR		
	R 953	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 954	QRZ9006-4R7X	F RESISTOR	4.7 1/0W	
	R 955	NRSA63J-223X	MG RESISTOR		
	R 956	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 960	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 961	NRSA63J-681X	MG RESISTOR		
	R 964	NRSA63J-105X	MG RESISTOR		
	R 965	NRSA63J-103X	MG RESISTOR		
	R 969	NRSA63J-221X	MG RESISTOR		
	R 971	NRSA63J-392X	MG RESISTOR		
	R 972	NRSA63J-122X	MG RESISTOR		
	R 973	NRSA63J-102X	MG RESISTOR		
	R 974	NRSA63J-562X	MG RESISTOR		
	R 975	NRSA63J-562X	MG RESISTOR		
	R 976	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 980	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R1704	NRSA63J-103X	MG RESISTOR		
	R1707	NRSA63J-222X	MG RESISTOR		
	R1708	NRSA63J-222X	MG RESISTOR		
	R1709	NRSA63J-102X	MG RESISTOR		
	R1710	NRSA63J-102X	MG RESISTOR		
	R1711	NRSA63J-102X	MG RESISTOR		
	R1712	NRSA63J-331X	MG RESISTOR		
	R1713	NRSA63J-101X	MG RESISTOR		
	R1714	NRSA63J-472X	MG RESISTOR		
	R1715	NRSA63J-103X	MG RESISTOR		UJ

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R1716	NRSA63J-102X	MG RESISTOR		
	R1717	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	UJ
	R1721	NRSA63J-331X	MG RESISTOR		UN,US,UW
	R1722	NRSA63J-750X	MG RESISTOR		
	R1723	NRSA63J-270X	MG RESISTOR		
	R1724	NRSA63J-101X	MG RESISTOR		
	R7391	NRSA63J-105X	MG RESISTOR		UN,US,UW
	R7491	NRSA63J-105X	MG RESISTOR		UN,US,UW
	S 691	QSW0454-001	SW		B,EN
	S 701	QSW0454-001	SW		UN,US,UW
	S 702	QSW0454-001	SW		UN,US,UW
	S 801	QSW0651-001Z	TACT SWITCH	STANDBY	
	S 821	QSW0651-001Z	TACT SWITCH		
	S 822	QSW0651-001Z	TACT SWITCH		
	S 823	QSW0651-001Z	TACT SWITCH		
	S 824	QSW0651-001Z	TACT SWITCH		
	S 825	QSW0651-001Z	TACT SWITCH		
	S 826	QSW0651-001Z	TACT SWITCH		
	S 831	QSW0651-001Z	TACT SWITCH		
	S 832	QSW0651-001Z	TACT SWITCH		
	S 833	QSW0651-001Z	TACT SWITCH		
	S 834	QSW0651-001Z	TACT SWITCH		
	S 835	QSW0651-001Z	TACT SWITCH		
	T 701	QQR1185-001	PULSE TRANS		
⚠	T 901	QQS0076-001	SW TRANSF		B,EN,UN,US,UW
⚠	T 901	QQS0028-001	SW TRANSF		UJ
	VR871	QVQ0006-B14	SEMI.V.RESISTOR		UN,US,UW
	VR872	QVQ0006-B14	SEMI.V.RESISTOR		UN,US,UW
	X 701	QAX0671-001Z	RESONATOR I.M		

■ **Electrical parts list (Servo control board)**

Block No. 02

⚠	Item	Parts number	Parts name	Remarks	Area
	C 1	NCB31CK-104X	C CAPACITOR		
	C 2	NEA70JM-226X	E CAPACITOR		
	C 3	NEA70JM-226X	E CAPACITOR		
	C 4	NCB31CK-104X	C CAPACITOR		
	C 5	NEA70JM-226X	E CAPACITOR		
	C 6	NCB31CK-104X	C CAPACITOR		
	C 11	NEA70JM-107X	E.CAPACITOR		
	C 12	NCB31CK-104X	C CAPACITOR		
	C 15	NCB31CK-104X	C CAPACITOR		
	C 16	NBE20JM-106X	TS E CAP SVB20J		
	C 17	NCB31CK-104X	C CAPACITOR		
	C 101	NCB31HK-561X	C CAPACITOR		
	C 102	NCB31CK-104X	C CAPACITOR		
	C 103	NCB31CK-104X	C CAPACITOR		
	C 104	NCB31CK-104X	C CAPACITOR		
	C 105	NCB31CK-104X	C CAPACITOR		
	C 109	NEA70JM-476X	E.CAPACITOR		
	C 112	NEA70JM-476X	E.CAPACITOR		
	C 118	NCB21CK-154X	C CAPACITOR		
	C 119	NCS31HJ-221X	C.CAPA. C.M		
	C 120	NCS31HJ-820X	C CAPACITOR		
	C 121	NCS31HJ-220X	C CAPACITOR		
	C 122	NCB31HK-271X	C CAPACITOR		
	C 123	NCB31CK-104X	C CAPACITOR		
	C 124	NCB31CK-104X	C CAPACITOR		
	C 125	NCB31CK-104X	C CAPACITOR		
	C 126	NEX40JM-566X	E CAPACITOR		
	C 127	NCB31HK-102X	C CAPACITOR		
	C 128	NCB31CK-104X	C CAPACITOR		
	C 130	NCB31CK-104X	C CAPACITOR		
	C 131	NCS31HJ-120X	C.CAPA. C.M		
	C 132	NCB31CK-104X	C CAPACITOR		
	C 133	NCB31HK-561X	C CAPACITOR		
	C 134	NCB31HK-561X	C CAPACITOR		
	C 135	NCB31CK-273X	C CAPACITOR		
	C 136	NCB31CK-473X	C CAPACITOR		
	C 138	NCB31CK-104X	C CAPACITOR		
	C 139	NCB31CK-104X	C CAPACITOR		
	C 140	NEA70JM-226X	E CAPACITOR		
	C 141	NCB31CK-104X	C CAPACITOR		
	C 143	NCB31CK-104X	C CAPACITOR		
	C 144	NCB31CK-104X	C CAPACITOR		
	C 145	NCB31CK-103X	C CAPACITOR		
	C 151	NEA70JM-226X	E CAPACITOR		
	C 152	NEX40JM-156X	E.CAPACITOR		
	C 153	NCB31CK-104X	C CAPACITOR		
	C 159	NCB31CK-104X	C CAPACITOR		
	C 160	NCB31CK-104X	C CAPACITOR		
	C 161	NEA70GM-336X	E CAPACITOR		
	C 202	NCB31HK-561X	C CAPACITOR		
	C 203	NCB31HK-561X	C CAPACITOR		
	C 204	NCB31HK-331X	C CAPACITOR		
	C 205	NCS31HJ-121X	C CAPACITOR		
	C 206	NCS31HJ-271X	C CAPACITOR		
	C 207	NCB31HK-471X	C CAPACITOR		
	C 208	NCB31CK-104X	C CAPACITOR		
	C 209	NCB31HK-102X	C CAPACITOR		
	C 210	NCB31HK-102X	C CAPACITOR		
	C 222	NCB31CK-103X	C CAPACITOR		
	C 223	NCB31HK-102X	C CAPACITOR		
	C 224	NCB31CK-104X	C CAPACITOR		
	C 225	NBE91CM-105X	E CAPACITOR		
	C 227	NCB31HK-102X	C CAPACITOR		
	C 228	NCB31HK-102X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C 237	NCB31CK-104X	C CAPACITOR		
	C 238	NCB31CK-104X	C CAPACITOR		
	C 239	NCB31CK-183X	C CAPACITOR		
	C 240	NCS31HJ-101X	C.CAPA. C.M		
	C 241	NCB31CK-103X	C CAPACITOR		
	C 242	NCB11CK-105X	C CAPACITOR		
	C 244	NCB31CK-104X	C CAPACITOR		
	C 245	NCB31CK-103X	C CAPACITOR		
	C 246	NCB31CK-104X	C CAPACITOR		
	C 247	NCB31CK-104X	C CAPACITOR		
	C 248	NCB21CK-154X	C CAPACITOR		
	C 249	NCB31CK-104X	C CAPACITOR		
	C 250	NCB31CK-104X	C CAPACITOR		
	C 251	NCB31CK-104X	C CAPACITOR		
	C 253	NCB31CK-104X	C CAPACITOR		
	C 254	NEA70GM-336X	E CAPACITOR		
	C 255	NCB31CK-104X	C CAPACITOR		
	C 256	NEA70GM-107X	E CAPACITOR		
	C 257	NCB11CK-105X	C CAPACITOR		
	C 258	NEA70GM-107X	E CAPACITOR		
	C 259	NCB11CK-105X	C CAPACITOR		
	C 260	NCB31HK-561X	C CAPACITOR		
	C 261	NCB31CK-104X	C CAPACITOR		
	C 262	NCB31CK-104X	C CAPACITOR		
	C 263	NCB31CK-104X	C CAPACITOR		
	C 264	NCB21CK-474X	C CAPACITOR		
	C 271	NCB31EK-332X	C CAPACITOR		
	C 272	NCB31HK-331X	C CAPACITOR		
	C 276	NCB31CK-104X	C CAPACITOR		
	C 277	NCB31CK-104X	C CAPACITOR		
	C 278	NCB31HK-102X	C CAPACITOR		
	C 279	NCB31HK-152X	C CAPACITOR		
	C 281	NCB31CK-103X	C CAPACITOR		
	C 283	NCB31CK-223X	C CAPACITOR		
	C 284	NCB31CK-473X	C CAPACITOR		
	C 288	NCB31CK-223X	C CAPACITOR		
	C 289	NCB31CK-104X	C CAPACITOR		
	C 291	NCB31CK-104X	C CAPACITOR		
	C 292	NEA70JM-226X	E CAPACITOR		
	C 293	NEA71CM-226X	E.CAPAP. C.M		
	C 301	NCB31CK-104X	C CAPACITOR		
	C 302	NCB31CK-104X	C CAPACITOR		
	C 303	NCB31CK-104X	C CAPACITOR		
	C 304	NCB31CK-104X	C CAPACITOR		
	C 305	NCB31CK-104X	C CAPACITOR		
	C 306	NCB31CK-104X	C CAPACITOR		
	C 307	NCB31CK-104X	C CAPACITOR		
	C 309	NCB31CK-104X	C CAPACITOR		
	C 310	NCB31CK-104X	C CAPACITOR		
	C 311	NCB31CK-104X	C CAPACITOR		
	C 312	NCS31HJ-180X	C CAPACITOR		
	C 313	NCS31HJ-180X	C CAPACITOR		
	C 314	NCB31CK-104X	C CAPACITOR		
	C 315	NCB31CK-104X	C CAPACITOR		
	C 316	NEA70GM-107X	E CAPACITOR		
	C 317	NCB11CK-105X	C CAPACITOR		
	C 318	NCB31CK-104X	C CAPACITOR		
	C 319	NCB31CK-104X	C CAPACITOR		
	C 320	NCB31CK-104X	C CAPACITOR		
	C 321	NCB31CK-104X	C CAPACITOR		
	C 324	NCB31CK-104X	C CAPACITOR		
	C 326	NCB31CK-104X	C CAPACITOR		
	C 327	NEA70GM-107X	E CAPACITOR		
	C 341	NCB31CK-104X	C CAPACITOR		

■ **Electrical parts list (Servo control board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 342	NCB31CK-104X	C CAPACITOR		
	C 343	NCB31CK-104X	C CAPACITOR		
	C 344	NCB31CK-104X	C CAPACITOR		
	C 345	NEA70JM-107X	E.CAPACITOR		
	C 346	NCB11CK-105X	C CAPACITOR		
	C 401	NCB31CK-104X	C CAPACITOR		
	C 402	NCB31CK-104X	C CAPACITOR		
	C 405	NCB31CK-104X	C CAPACITOR		
	C 406	NCB31CK-104X	C CAPACITOR		
	C 407	NCB31CK-104X	C CAPACITOR		
	C 408	NEA70JM-226X	E CAPACITOR		
	C 409	NCB31CK-104X	C CAPACITOR		
	C 410	NCB31CK-104X	C CAPACITOR		
	C 411	NCB31CK-104X	C CAPACITOR		
	C 412	NCB31CK-104X	C CAPACITOR		
	C 421	NCB31CK-104X	C CAPACITOR		
	C 422	NCB31CK-104X	C CAPACITOR		
	C 501	NCB31CK-104X	C CAPACITOR		
	C 502	NCB31CK-104X	C CAPACITOR		
	C 503	NCB31CK-104X	C CAPACITOR		
	C 504	NCB31CK-104X	C CAPACITOR		
	C 505	NCB31CK-104X	C CAPACITOR		
	C 506	NCB31CK-104X	C CAPACITOR		
	C 507	NCB31CK-104X	C CAPACITOR		
	C 508	NCB31CK-104X	C CAPACITOR		
	C 509	NCB31CK-104X	C CAPACITOR		
	C 510	NCB31CK-104X	C CAPACITOR		
	C 511	NCB31CK-104X	C CAPACITOR		
	C 512	NCB31CK-104X	C CAPACITOR		
	C 513	NCB31CK-104X	C CAPACITOR		
	C 514	NCB31CK-104X	C CAPACITOR		
	C 515	NCB31CK-104X	C CAPACITOR		
	C 516	NCB31CK-104X	C CAPACITOR		
	C 517	NCB31CK-104X	C CAPACITOR		
	C 518	NCB31CK-104X	C CAPACITOR		
	C 519	NCB31CK-104X	C CAPACITOR		
	C 520	NCB31CK-104X	C CAPACITOR		
	C 521	NCB31CK-104X	C CAPACITOR		
	C 522	NCB31CK-104X	C CAPACITOR		
	C 523	NCB31CK-104X	C CAPACITOR		
	C 524	NCB31CK-104X	C CAPACITOR		
	C 525	NCB31CK-104X	C CAPACITOR		
	C 526	NCB31CK-104X	C CAPACITOR		
	C 527	NCB31CK-104X	C CAPACITOR		
	C 528	NCB31CK-104X	C CAPACITOR		
	C 529	NCB31CK-104X	C CAPACITOR		
	C 530	NEA70JM-107X	E.CAPACITOR		
	C 531	NCB31CK-104X	C CAPACITOR		
	C 532	NCB31CK-104X	C CAPACITOR		
	C 533	NCB31CK-104X	C CAPACITOR		
	C 534	NEA70JM-107X	E.CAPACITOR		
	C 535	NCB31CK-104X	C CAPACITOR		
	C 536	NCB31CK-103X	C CAPACITOR		
	C 537	NEA70JM-226X	E CAPACITOR		
	C 538	NCB31CK-104X	C CAPACITOR		
	C 539	NCB31CK-104X	C CAPACITOR		
	C 540	NEA70JM-226X	E CAPACITOR		
	C 541	NCB31CK-104X	C CAPACITOR		
	C 542	NEA70JM-226X	E CAPACITOR		
	C 543	NCB31CK-104X	C CAPACITOR		
	C 544	NCB31CK-104X	C CAPACITOR		
	C 546	NEA71CM-106X	E.CAPACITOR		
	C 547	NCB31CK-104X	C CAPACITOR		
	C 548	NCB31CK-104X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C 550	NEA71CM-106X	E.CAPACITOR		
	C 556	NEA70JM-107X	E.CAPACITOR		
	C 557	NCB31CK-104X	C CAPACITOR		
	C 561	NCB31CK-104X	C CAPACITOR		
	C 562	NEA70JM-226X	E CAPACITOR		
	C 566	NCB31CK-104X	C CAPACITOR		
	C 567	NEA70JM-226X	E CAPACITOR		
	C 589	NEA71EM-475X	E.CAPACITOR.		
	C 590	NEA71EM-475X	E.CAPACITOR.		
	C 591	NCB31HK-222X	C CAPACITOR		
	C 592	NCB31HK-222X	C CAPACITOR		
	C 593	NCB31CK-104X	C CAPACITOR		
	C 594	NEA71EM-475X	E.CAPACITOR.		
	C 595	NCB31CK-104X	C CAPACITOR		
	C 596	NEA71EM-475X	E.CAPACITOR.		
	C 599	NCB31CK-104X	C CAPACITOR		
	CN101	QGF0501F3-40X	FFC/FPC CONNE	PU	
	CN501	QGA2001F2-09X	CONNECTOR	POWER	
	CN502	QGF1016F2-17W	CONNECTOR	SYSTEM	
	CN503	QGF1016F2-09W	CONNECTOR C.M	VIDEO	
	D 501	1SR154-400-X	DIODE		
	D 511	1SS355-X	DIODE C.M		
	D 512	1SS355-X	DIODE C.M		
	D 513	1SS355-X	DIODE C.M		
	D 514	1SS355-X	DIODE C.M		
	IC 1	MM3023DN-X	IC		
	IC101	AN8702FH	IC		
	IC102	MM3023DN-X	IC		
	IC201	MN67706ZY	IC		
	IC271	M56788FP-W	IC		
	IC301	MN103S13BDA	IC		
	IC311	TC7SH08FU-X	IC		
	IC312	TC7SH32FU-X	IC		
	IC321	TC7WH74FU-X	IC		
	IC322	TC74VHC00FT-X	IC		
	IC401	MN102L62GGP	IC	**ATTENTION**	
	IC402	MR27V1602EN7MAX	IC	**ATTENTION**	B,EN
	IC402	MR27V1602ES9MAX	IC	**ATTENTION**	UJ
	IC402	MR27V1602EN8MAX	IC	**ATTENTION**	UN,US,U
	IC403	AK93C65AF-X	IC		
	IC411	TC74VHC125FT-X	IC		
	IC412	TC7WT125FU-X	IC(DIGITAL)		
	IC501	ZIVA-4.1-PA2	IC		
	IC502	NAX0393-001X	CXO C.M	27MHZ	
	IC503	TC74VHC00FT-X	IC		
	IC511	AK5353VT-X	IC		
	K 102	NQR0007-002X	FERRITE BEADS		
	K 103	NQR0007-002X	FERRITE BEADS		
	K 201	NQR0007-002X	FERRITE BEADS		
	K 202	NQR0007-002X	FERRITE BEADS		
	K 203	NQR0007-002X	FERRITE BEADS		
	K 301	NQR0007-002X	FERRITE BEADS		
	K 302	NQR0007-002X	FERRITE BEADS		
	K 303	NQR0007-002X	FERRITE BEADS		
	K 401	NQR0007-002X	FERRITE BEADS		
	K 402	NQR0007-002X	FERRITE BEADS		
	K 501	NQR0007-002X	FERRITE BEADS		
	K 502	NQR0007-002X	FERRITE BEADS		
	K 503	NQR0007-002X	FERRITE BEADS		
	K 504	NQR0201-001X	FERRITE BEADS		
	K 505	NQR0269-001X	FERRITE BEADS		
	K 506	NQR0007-002X	FERRITE BEADS		
	K 511	NQR0007-002X	FERRITE BEADS		
	K 551	NQR0007-002X	FERRITE BEADS		

ATTENTION : Please exchange "IC401" and "IC402" absolutely by the pair.

■ **Electrical parts list (Servo control board)**

Block No. 02

⚠	Item	Parts number	Parts name	Remarks	Area
	K 553	NQR0007-002X	FERRITE BEADS		
	K 554	NRSA02J-0R0X	MG RESISTOR		
	K 555	NQR0007-002X	FERRITE BEADS		
	K 556	NQR0007-002X	FERRITE BEADS		
	K 558	NQR0007-002X	FERRITE BEADS		
	K 561	NQR0007-002X	FERRITE BEADS		
	L 1	NQL044K-100X	INDUCTOR		
	Q 1	KTC4377/C/-X	POW TRANSISTOR		
	Q 101	KTA1001/Y/-X	TRANSISTOR		
	Q 102	KTA1001/Y/-X	TRANSISTOR		
	Q 275	DTC144EE-X	TRANSISTOR		
	Q 401	DTC144EE-X	TRANSISTOR		
	Q 402	DTC144EE-X	TRANSISTOR		
	Q 403	DTC144EE-X	TRANSISTOR		
	R 1	NRSA63J-100X	MG RESISTOR		
	R 103	NRS125J-270X	MG RESISTOR		
	R 104	NRS125J-270X	MG RESISTOR		
	R 107	NRSA63J-0R0X	MG RESISTOR		
	R 108	NRSA63J-183X	MG RESISTOR		
	R 109	NRSA63J-0R0X	MG RESISTOR		
	R 110	NRSA63J-273X	MG RESISTOR		
	R 111	NRSA63J-0R0X	MG RESISTOR		
	R 112	NRSA63J-273X	MG RESISTOR		
	R 113	NRSA63J-682X	MG RESISTOR		
	R 114	NRSA63J-102X	MG RESISTOR		
	R 115	NRVA63D-243X	MG RESISTOR		
	R 116	NRSA63J-393X	MG RESISTOR		
	R 117	NRSA63J-123X	MG RESISTOR		
	R 118	NRSA63J-223X	MG RESISTOR		
	R 121	NRSA63J-0R0X	MG RESISTOR		
	R 122	NRSA63J-0R0X	MG RESISTOR		
	R 123	NRSA63J-0R0X	MG RESISTOR		
	R 124	NRSA63J-0R0X	MG RESISTOR		
	R 125	NRSA63J-0R0X	MG RESISTOR		
	R 126	NRSA63J-0R0X	MG RESISTOR		
	R 127	NRSA63J-222X	MG RESISTOR		
	R 128	NRSA63J-105X	MG RESISTOR		
	R 129	NRSA63J-105X	MG RESISTOR		
	R 131	NRSA63J-822X	MG RESISTOR		
	R 132	NRSA63J-103X	MG RESISTOR		
	R 144	NRSA63J-333X	MG RESISTOR		
	R 145	NRSA63J-103X	MG RESISTOR		
	R 152	NRS125J-1R0X	MG RESISTOR		
	R 153	NRS125J-4R7X	MG RESISTOR		
	R 155	NRSA63J-0R0X	MG RESISTOR		
	R 156	NRSA63J-333X	MG RESISTOR		
	R 160	NRSA63J-0R0X	MG RESISTOR		
	R 161	NRSA63J-0R0X	MG RESISTOR		
	R 162	NRSA63J-0R0X	MG RESISTOR		
	R 163	NRSA63J-0R0X	MG RESISTOR		
	R 166	NRSA63J-182X	MG RESISTOR		
	R 202	NRSA63J-473X	MG RESISTOR		
	R 203	NRSA63J-473X	MG RESISTOR		
	R 204	NRSA63J-473X	MG RESISTOR		
	R 205	NRSA63J-473X	MG RESISTOR		
	R 208	NRSA63J-473X	MG RESISTOR		
	R 209	NRSA63J-123X	MG RESISTOR		
	R 210	NRSA63J-473X	MG RESISTOR		
	R 211	NRSA63J-273X	MG RESISTOR		
	R 212	NRSA63J-273X	MG RESISTOR		
	R 213	NRSA63J-562X	MG RESISTOR		
	R 214	NRSA63J-123X	MG RESISTOR		
	R 215	NRSA63J-105X	MG RESISTOR		
	R 218	NRSA63J-153X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R 219	NRSA63J-473X	MG RESISTOR		
	R 220	NRSA63J-473X	MG RESISTOR		
	R 223	NRSA63J-473X	MG RESISTOR		
	R 225	NRSA63J-682X	MG RESISTOR		
	R 227	NRSA63J-102X	MG RESISTOR		
	R 228	NRSA63J-183X	MG RESISTOR		
	R 229	NRSA63J-273X	MG RESISTOR		
	R 230	NRSA63J-273X	MG RESISTOR		
	R 232	NRSA63J-472X	MG RESISTOR		
	R 233	NRSA63J-472X	MG RESISTOR		
	R 234	NRSA63J-472X	MG RESISTOR		
	R 235	NRSA63J-0R0X	MG RESISTOR		
	R 237	NRSA63J-221X	MG RESISTOR		
	R 238	NRSA63J-221X	MG RESISTOR		
	R 239	NRSA63J-221X	MG RESISTOR		
	R 240	NRSA63J-221X	MG RESISTOR		
	R 241	NRSA63J-221X	MG RESISTOR		
	R 242	NRSA63J-102X	MG RESISTOR		
	R 243	NRSA63J-102X	MG RESISTOR		
	R 244	NRSA63J-102X	MG RESISTOR		
	R 245	NRSA63J-102X	MG RESISTOR		
	R 246	NRSA63J-102X	MG RESISTOR		
	R 248	NRSA63J-473X	MG RESISTOR		
	R 249	NRSA63J-473X	MG RESISTOR		
	R 250	NRSA63J-473X	MG RESISTOR		
	R 253	NRS125J-4R7X	MG RESISTOR		
	R 255	NRSA63J-123X	MG RESISTOR		
	R 256	NRSA63J-0R0X	MG RESISTOR		
	R 257	NRSA63J-0R0X	MG RESISTOR		
	R 258	NRSA63J-0R0X	MG RESISTOR		
	R 261	NRSA63J-0R0X	MG RESISTOR		
	R 271	NRSA63J-563X	MG RESISTOR		
	R 272	NRSA63J-103X	MG RESISTOR		
	R 273	NRS125J-1R0X	MG RESISTOR		
	R 274	NRSA63J-0R0X	MG RESISTOR		
	R 275	NRSA63J-103X	MG RESISTOR		
	R 276	NRSA63J-103X	MG RESISTOR		
	R 277	NRSA63J-103X	MG RESISTOR		
	R 278	NRSA63J-103X	MG RESISTOR		
	R 279	NRSA63J-103X	MG RESISTOR		
	R 280	NRSA63J-103X	MG RESISTOR		
	R 282	NRSA63J-103X	MG RESISTOR		
	R 283	NRSA63J-103X	MG RESISTOR		
	R 284	NRSA63J-472X	MG RESISTOR		
	R 285	NRSA63J-103X	MG RESISTOR		
	R 286	NRSA63J-103X	MG RESISTOR		
	R 287	NRSA63J-103X	MG RESISTOR		
	R 288	NRSA63J-103X	MG RESISTOR		
	R 289	NRSA63J-103X	MG RESISTOR		
	R 290	NRSA63J-103X	MG RESISTOR		
	R 292	NRSA63J-223X	MG RESISTOR		
	R 295	NRSA63J-103X	MG RESISTOR		
	R 296	NRSA63J-103X	MG RESISTOR		
	R 297	NRS125J-1R0X	MG RESISTOR		
	R 301	NRSA63J-473X	MG RESISTOR		
	R 302	NRSA63J-473X	MG RESISTOR		
	R 303	NRSA63J-473X	MG RESISTOR		
	R 304	NRSA63J-473X	MG RESISTOR		
	R 305	NRSA63J-473X	MG RESISTOR		
	R 306	NRSA63J-473X	MG RESISTOR		
	R 307	NRSA63J-473X	MG RESISTOR		
	R 308	NRSA63J-473X	MG RESISTOR		
	R 309	NRSA63J-103X	MG RESISTOR		
	R 310	NRSA63J-102X	MG RESISTOR		

■ **Electrical parts list (Servo control board)**

Block No. 02

⚠	Item	Parts number	Parts name	Remarks	Area
	R 311	NRSA63J-102X	MG RESISTOR		
	R 312	NRSA63J-102X	MG RESISTOR		
	R 316	NRSA63J-105X	MG RESISTOR		
	R 317	NRSA63J-0R0X	MG RESISTOR		
	R 318	NRSA63J-0R0X	MG RESISTOR		
	R 322	NRSA63J-473X	MG RESISTOR		
	R 324	NRSA63J-473X	MG RESISTOR		
	R 328	NRSA63J-473X	MG RESISTOR		
	R 342	NRSA63J-0R0X	MG RESISTOR		
	R 343	NRSA63J-102X	MG RESISTOR		
	R 345	NRSA63J-562X	MG RESISTOR		
	R 346	NRSA63J-472X	MG RESISTOR		
	R 347	NRSA63J-102X	MG RESISTOR		
	R 348	NRSA63J-102X	MG RESISTOR		
	R 349	NRSA63J-102X	MG RESISTOR		
	R 350	NRSA63J-102X	MG RESISTOR		
	R 364	NRSA63J-0R0X	MG RESISTOR		
	R 403	NRSA63J-472X	MG RESISTOR		
	R 405	NRSA63J-472X	MG RESISTOR		
	R 408	NRSA63J-472X	MG RESISTOR		
	R 411	NRSA63J-472X	MG RESISTOR		
	R 412	NRSA63J-103X	MG RESISTOR		
	R 413	NRSA63J-472X	MG RESISTOR		
	R 414	NRSA63J-472X	MG RESISTOR		
	R 415	NRSA63J-472X	MG RESISTOR		
	R 416	NRSA63J-472X	MG RESISTOR		
	R 417	NRSA63J-472X	MG RESISTOR		
	R 418	NRSA63J-472X	MG RESISTOR		
	R 421	NRSA63J-0R0X	MG RESISTOR		
	R 424	NRSA63J-0R0X	MG RESISTOR		
	R 426	NRSA63J-0R0X	MG RESISTOR		
	R 431	NRSA63J-472X	MG RESISTOR		
	R 432	NRSA63J-472X	MG RESISTOR		
	R 435	NRSA63J-103X	MG RESISTOR		
	R 436	NRSA63J-103X	MG RESISTOR		
	R 437	NRSA63J-103X	MG RESISTOR		
	R 501	NRSA63J-102X	MG RESISTOR		
	R 502	NRSA63J-472X	MG RESISTOR		
	R 504	NRSA63J-330X	MG RESISTOR		
	R 506	NRSA63J-330X	MG RESISTOR		
	R 507	NRSA63J-330X	MG RESISTOR		
	R 508	NRSA63J-330X	MG RESISTOR		
	R 509	NRSA63J-330X	MG RESISTOR		
	R 510	NRSA63J-330X	MG RESISTOR		
	R 511	NRSA63J-330X	MG RESISTOR		
	R 512	NRSA63J-330X	MG RESISTOR		
	R 513	NRSA63J-330X	MG RESISTOR		
	R 514	NRSA63J-330X	MG RESISTOR		
	R 515	NRSA63J-330X	MG RESISTOR		
	R 516	NRSA63J-330X	MG RESISTOR		
	R 517	NRSA63J-330X	MG RESISTOR		
	R 518	NRSA63J-330X	MG RESISTOR		
	R 519	NRSA63J-330X	MG RESISTOR		
	R 520	NRSA63J-330X	MG RESISTOR		
	R 521	NRSA63J-330X	MG RESISTOR		
	R 522	NRSA63J-330X	MG RESISTOR		
	R 524	NRSA63J-181X	MG RESISTOR		
	R 527	NRSA63J-181X	MG RESISTOR		
	R 528	NRSA63J-102X	MG RESISTOR		
	R 529	NRSA63J-181X	MG RESISTOR		
	R 530	NRSA63J-0R0X	MG RESISTOR		
	R 531	NRSA63J-330X	MG RESISTOR		
	R 532	NRSA63J-102X	MG RESISTOR		
	R 533	NRSA63J-330X	MG RESISTOR		
	R 534	NRSA63J-330X	MG RESISTOR		
	R 535	NRSA63J-330X	MG RESISTOR		
	R 536	NRSA63J-330X	MG RESISTOR		
	R 537	NRSA63J-330X	MG RESISTOR		
	R 538	NRSA63J-330X	MG RESISTOR		
	R 539	NRSA63J-330X	MG RESISTOR		
	R 540	NRSA63J-330X	MG RESISTOR		
	R 541	NRSA63J-0R0X	MG RESISTOR		
	R 542	NRSA63J-0R0X	MG RESISTOR		
	R 543	NRSA63J-0R0X	MG RESISTOR		
	R 545	NRSA63J-472X	MG RESISTOR		
	R 546	NRSA63J-181X	MG RESISTOR		
	R 549	NRSA63J-0R0X	MG RESISTOR		
	R 561	NCB31CK-104X	C CAPACITOR		
	R 562	NRSA63J-181X	MG RESISTOR		
	R 563	NRSA63J-181X	MG RESISTOR		
	R 591	NRSA63J-471X	MG RESISTOR		
	R 592	NRSA63J-471X	MG RESISTOR		
	R 595	NRSA63J-0R0X	MG RESISTOR		
	R1201	NRSA63J-183X	MG RESISTOR	TO C230	
	X 301	NAX0375-001X	CRYSTAL	16.9344MHZ	
	X 401	NAX0331-001X	C RESONATOR		

Block No. 03

■ **Electrical parts list (DVD changer mechanism switch board)**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN804	QGB2016J1-07	CONNECTOR		
	SW 1	QSW0507-001	SWITCH		
	SW 2	QSW0507-001	SWITCH		
	SW 3	QSW0507-001	SWITCH		
	SW 4	QSW0507-001	SWITCH		
	SW 5	QSW0507-001	SWITCH		
	SW 6	QSW0507-001	SWITCH		

■ **Electrical parts list (Mechanism control board)** Block No. 04

⚠	Item	Parts number	Parts name	Remarks	Area
	C 801	QEKC1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 802	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 803	QFLC1HJ-102Z	M CAPACITOR	1000PF 5% 50V	
	C 804	QCFB1HZ-104Y	C CAPACITOR	.10MF +80:-20%	
	C 805	QDYB1CM-103Y	C CAPACITOR		
	C 806	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 807	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 808	QFLC1HJ-102Z	M CAPACITOR	1000PF 5% 50V	
	C 810	QCZ0205-155Z	ML C CAP I/M	1.5MF	
	C 811	QCZ0205-155Z	ML C CAP I/M	1.5MF	
	C 813	QDYB1CM-103Y	C CAPACITOR		
	C 821	QDGB1HK-102Y	C CAPACITOR		
	CN801	QGF1205F1-10	CONNECTOR	TO MICON	
	CN802	QGB2016K1-07	CONNECTOR	TO SWITCH PWB	
	CN803	QGB2012K2-10	CONNECTOR	TO CAM SW PWB	
	IC801	UPD65612GB-208	IC		
⚠	IC802	TA8409S	IC		
⚠	IC803	TA8409S	IC		
	L 801	QQL231K-100Y	INDUCTOR		
	L 802	QQL01BK-100Z	INDUCTOR		
	L 803	QQL01BK-100Z	INDUCTOR		
	L 804	QQL01BK-100Z	INDUCTOR		
	R 805	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 806	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 807	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 808	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 810	QRE141J-684Y	C RESISTOR	680K 5% 1/4W	
	R 811	QRE141J-105Y	C RESISTOR	1.0M 5% 1/4W	
	R 813	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 814	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 815	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 816	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 817	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 818	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 819	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 820	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 821	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 822	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 823	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 824	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 825	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 826	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 827	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 828	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 829	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 830	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 832	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R 833	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 834	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 838	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R 839	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 840	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	

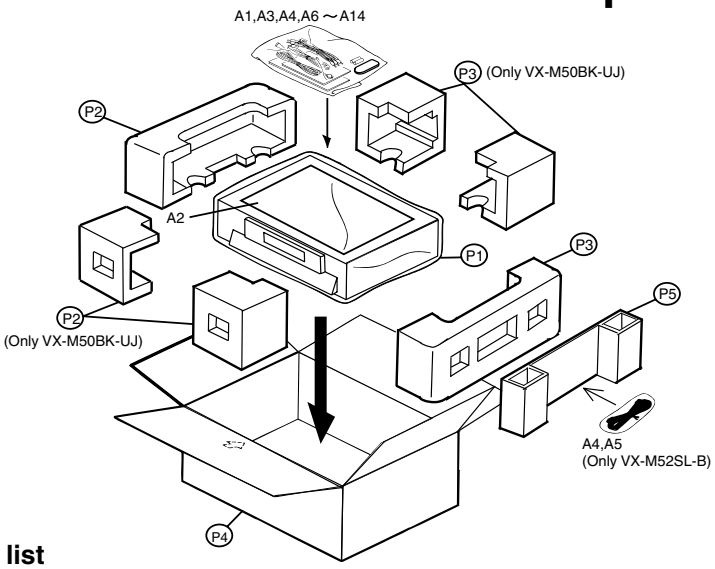
■ **Electrical parts list (Conection board)** Block No. 05

⚠	Item	Parts number	Parts name	Remarks	Area
	C 13	NCS31HJ-101X	CAPACITOR		
	CN 10	QGF0501F4-40X	FFC/FPC CONNECTOR		
	CN 11	QGF1016F2-04W	CONNECTOR		
	CN 12	QGF1012F1-30X	FPC CONNECTOR		
	IC 1	GP2S60B-X	IC(PHOTO COUPLER)		
	K 10	NQR0265-003X	F.BEADS C.M		
	K 11	NQR0265-003X	F.BEADS C.M		
	K 12	NQR0265-003X	F.BEADS C.M		
	K 13	NQR0265-003X	F.BEADS C.M		
	K 14	NQR0265-003X	F.BEADS C.M		
	K 15	NQR0265-003X	F.BEADS C.M		
	K 16	NQR0265-003X	F.BEADS C.M		
	K 17	NQR0265-003X	F.BEADS C.M		
	K 18	NQR0265-003X	F.BEADS C.M		
	R 10	NRSA63J-391X	MG.RESISTOR		
	R 11	NRSA63J-910X	MG.RESISTOR		
	R 12	NRSA63J-911X	MG.RESISTOR		
	S 10	QSW0620-001	REST SWITCH		
	S 11	NSW0127-001X	SLIDE SWITCH		

Packing materials and accessories parts list

Block No. M 4 M M

Block No. M 5 M M



■ Packing parts list

Block No. M4MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPC06506515P	POLY BAG	1	SET	
	P 2	LE20590-001A	CUSHION(LEFT)	1	LEFT	B,EN,UN,US,UW
		LE20567-001A	CUSHION(F)	1	FRONT	UJ
	P 3	LE20591-001A	CUSHION(RIGHT)	1	RIGHT	B,EN,UN,US,UW
		LE20568-001A	CUSHION(R)	1	REAR	UJ
	P 4	LE30952-004A	CARTON BOX	1		B
		LE30952-005A	CARTON BOX	1		EN
		LE30952-001A	CARTON BOX	1		UJ
		LE30952-007A	CARTON BOX	1		UN,US
		LE30952-009A	CARTON BOX	1		UW
	P 5	LV31291-003A	PACKING SHEET	1		B

■ Accessories parts list

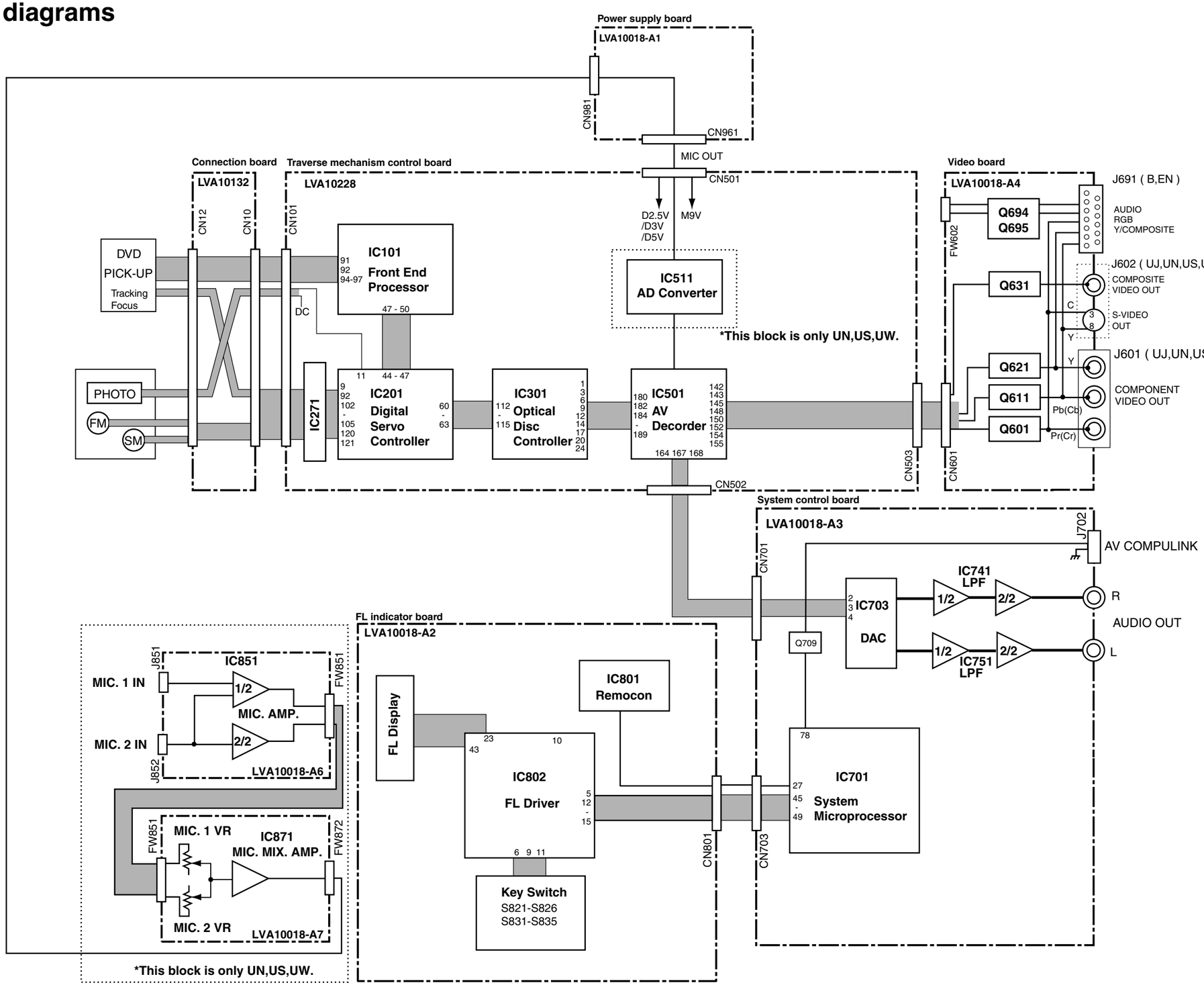
Block No. M5MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LET0183-004A	INST BOOK	1	EN	B
		LET0183-006A	INST BOOK	1	GE,IT,SP,FR	EN
		LET0183-003A	INST BOOK	1	EN	UJ
		LET0183-009A	INST BOOK	1	CH,EN	UN,US
		LET0183-014A	INST BOOK	1	EN,PR,SP	UW
	A 2	LE40805002B	INST SHEET	1		UJ,UN,US,UW
	A 3	LET0183-007A	INST BOOK	1		EN
⚠	A 4	QMPP060-183-JD	POWER CORD	1		B
⚠		QMPL080-183-JC	POWER CORD	1		EN,UN,US,UW
⚠		QMPL150-183-JC	POWER CORD	1		UJ
	A 5	QPC02503510P	POLY BAG	1		B
⚠	A 6	QAM0112-001	AC PLUG ADAPTER	1		UJ,UN,US,UW
	A 7	BT-51020-2	J=REGIST CARD	1		UJ
	A 8	YU20333	SAFETY INST.	1		UJ
	A 9	VNA3000-204	REGIST.CARD	1		B
	A 10	QAM0328-001	AV CORD 3P	1		
	A 11	QAM0223-001	PLUG CORD	1		UJ,UN,US,UW
	A 12	RM-SXVM52E	REMOCON UNIT	1		B,EN
		RM-SXVM50J	REMOCON UNIT	1		UJ
		RM-SXVM52U	REMOCON UNIT	1		UN,US,UW
	A 13	--------	BATTERY	2		
	A 14	QPC02504015P	POLY BAG	1		

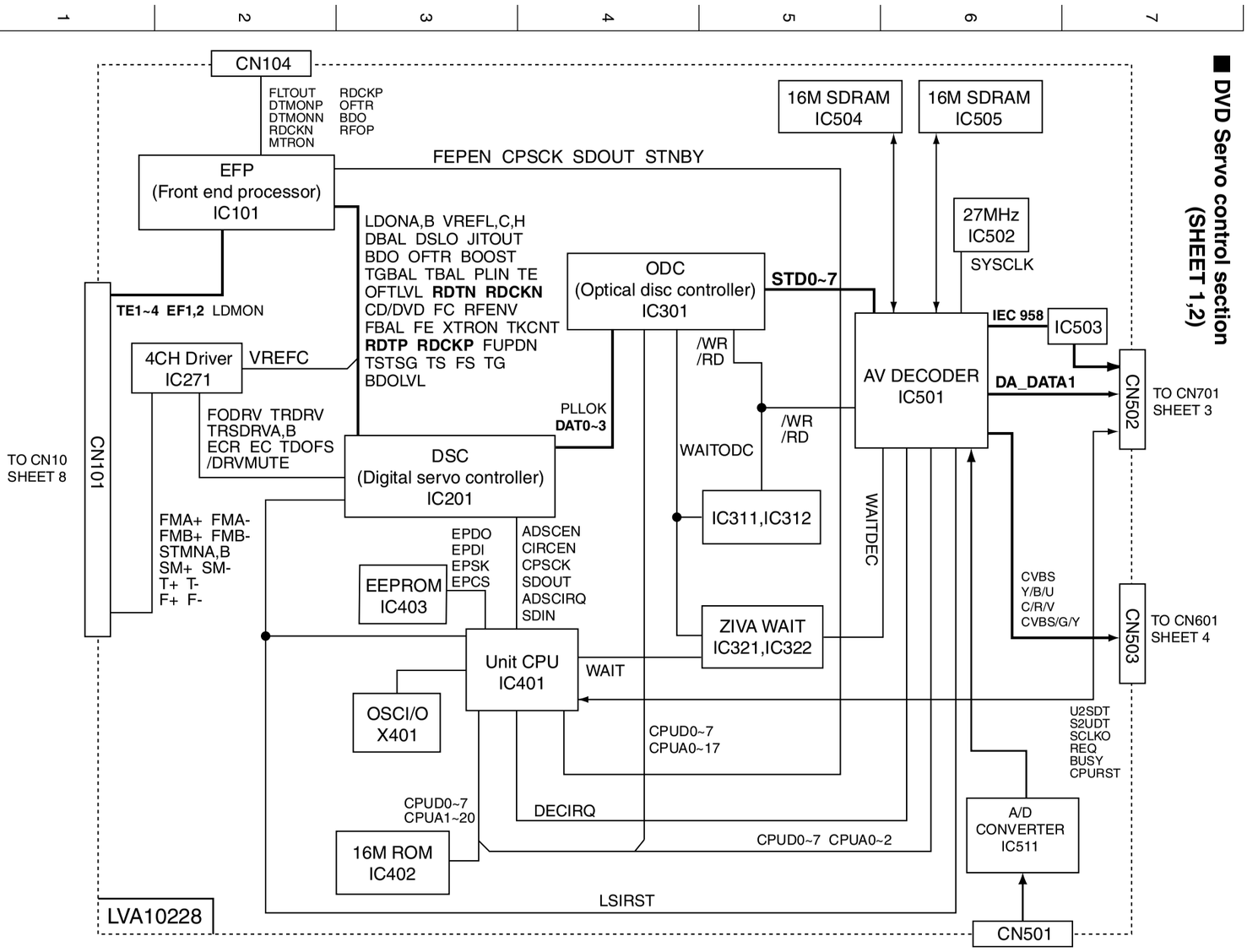
Safety Precautions

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▬) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.
When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the J and C version)

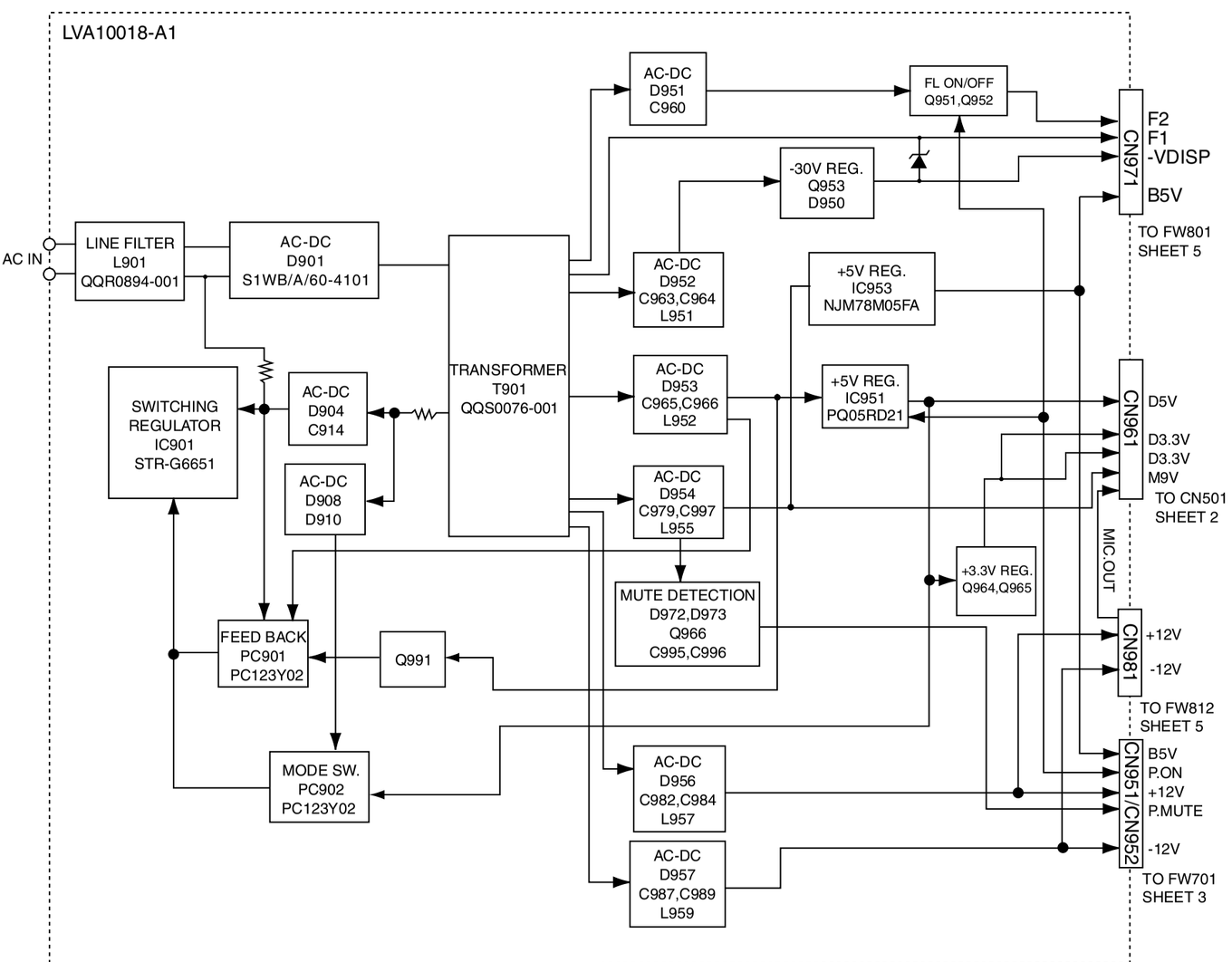
Block diagrams



■ DVD Servo control section (SHEET 1,2)

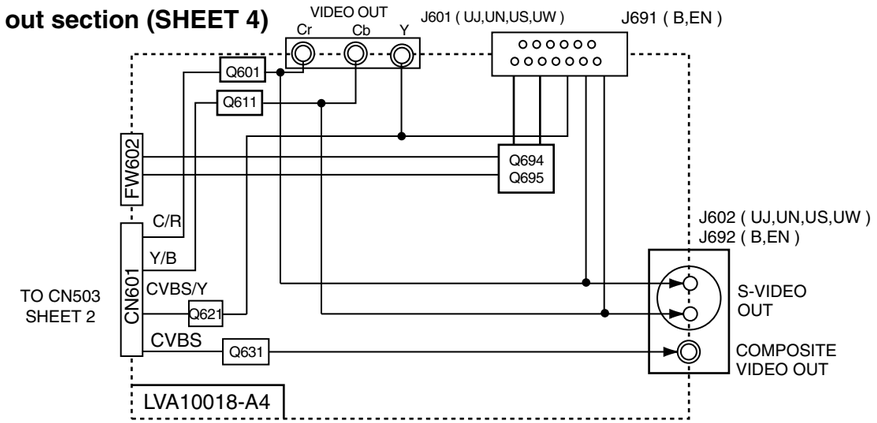


■ Power supply section (SHEET 6)

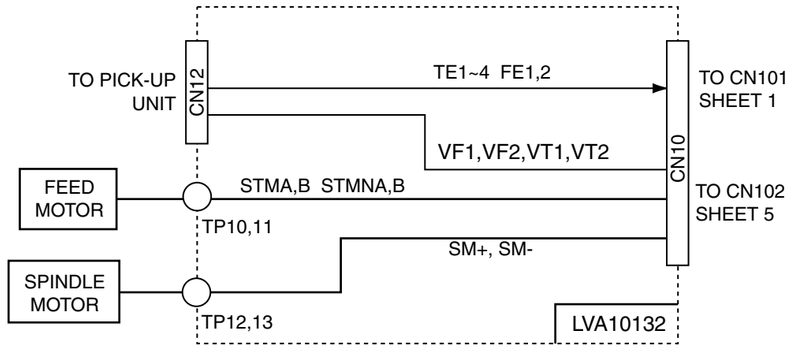


XV-M52SL/XV-M50BK

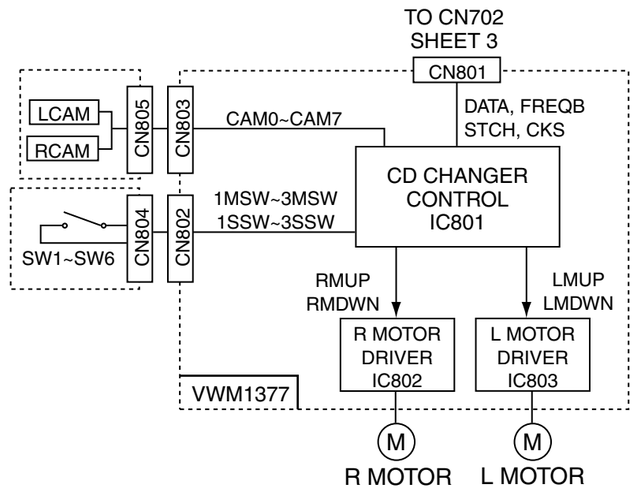
■ Video out section (SHEET 4)



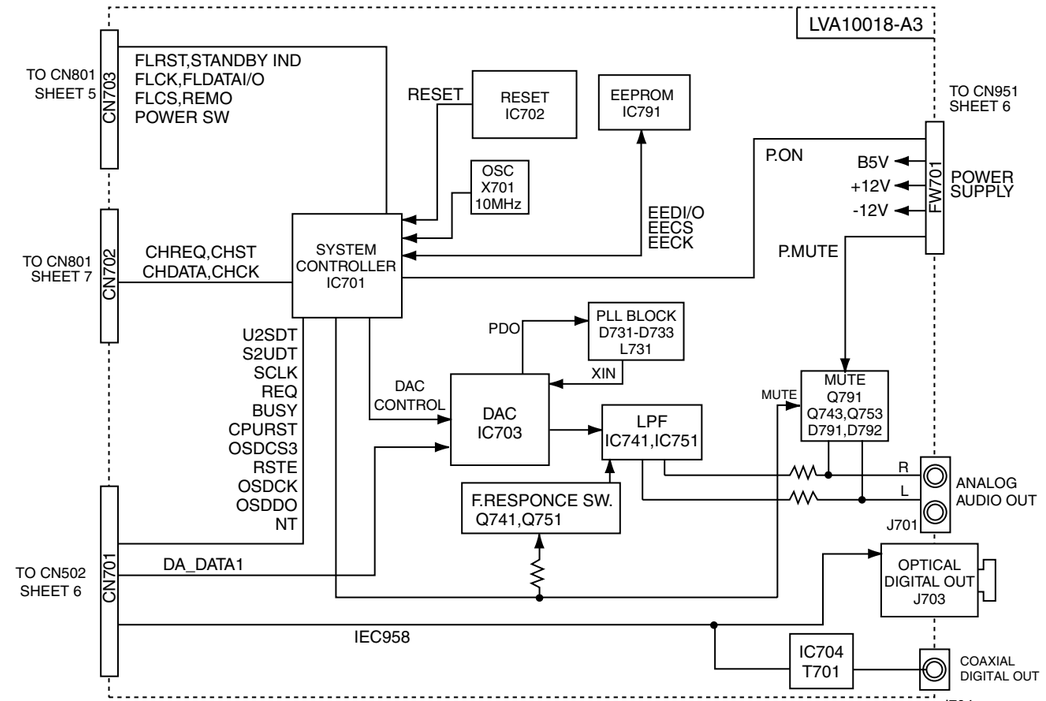
■ Connection to pick-up section (SHEET 8)



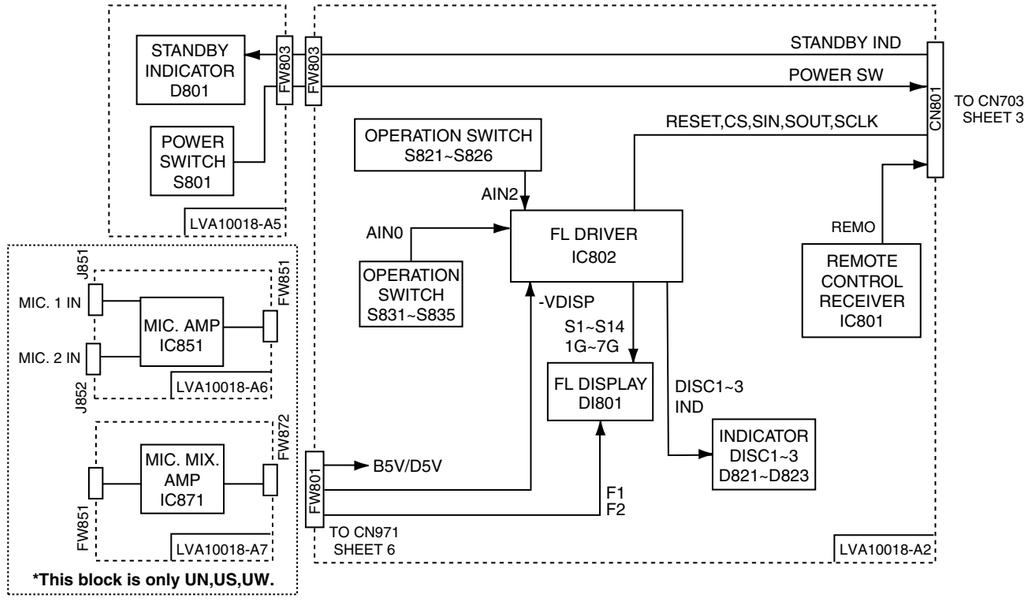
■ Changer mechanism control section (SHEET 7)



■ System control section (SHEET 3)

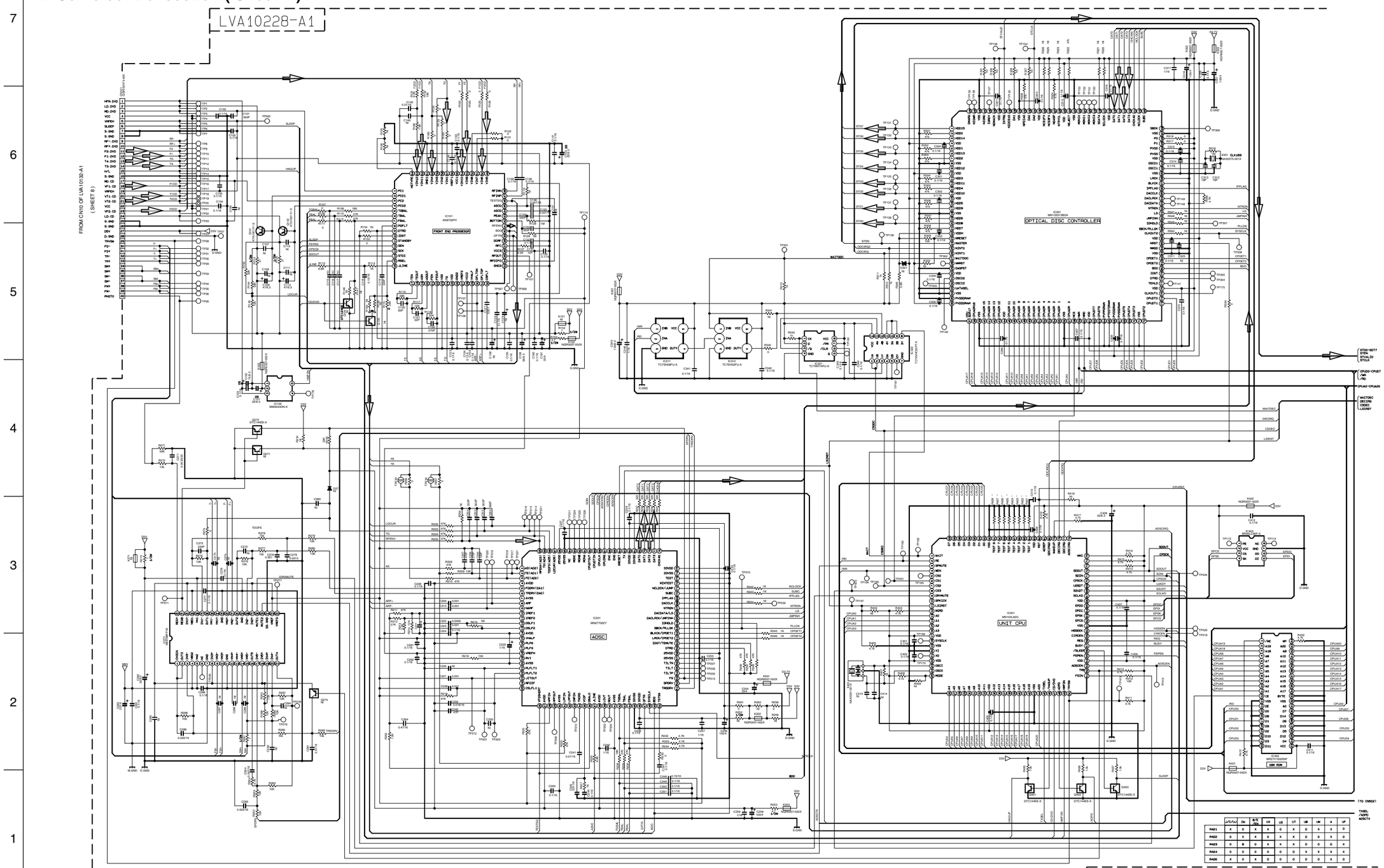


■ FL Driver section (SHEET 5)

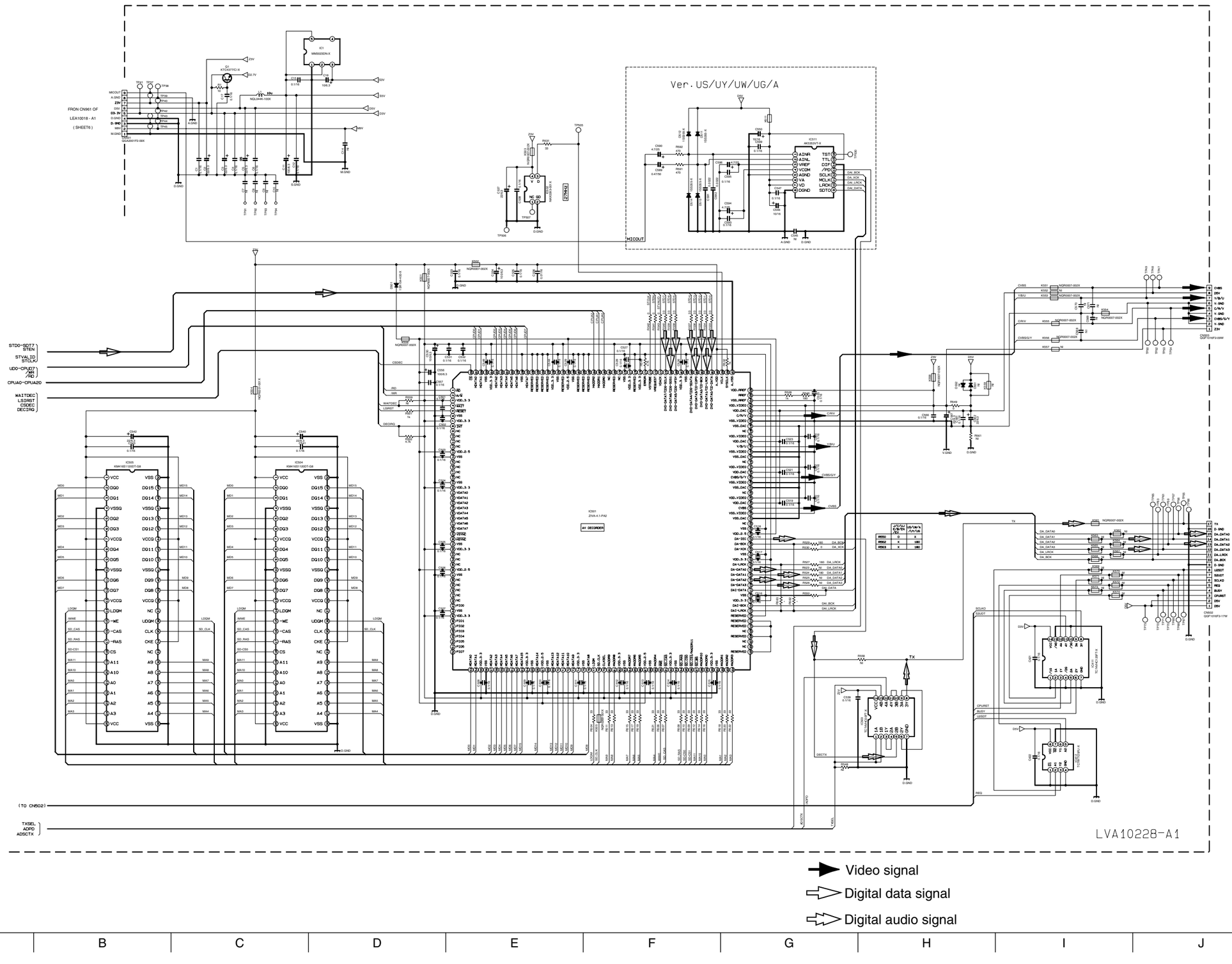


Standard schematic diagrams

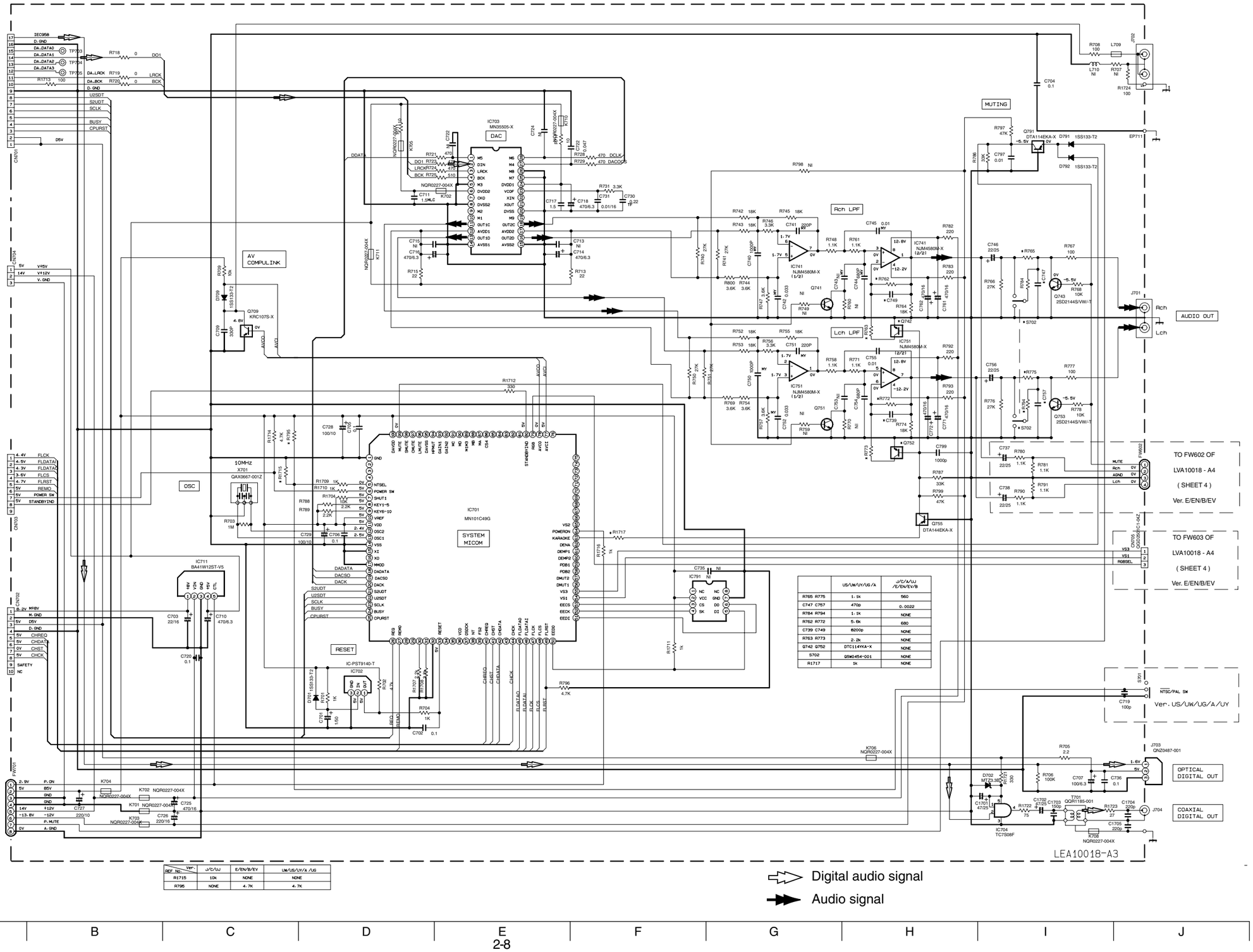
■ Servo control section (Sheet 1)



■ AV Decorder section (Sheet 2)



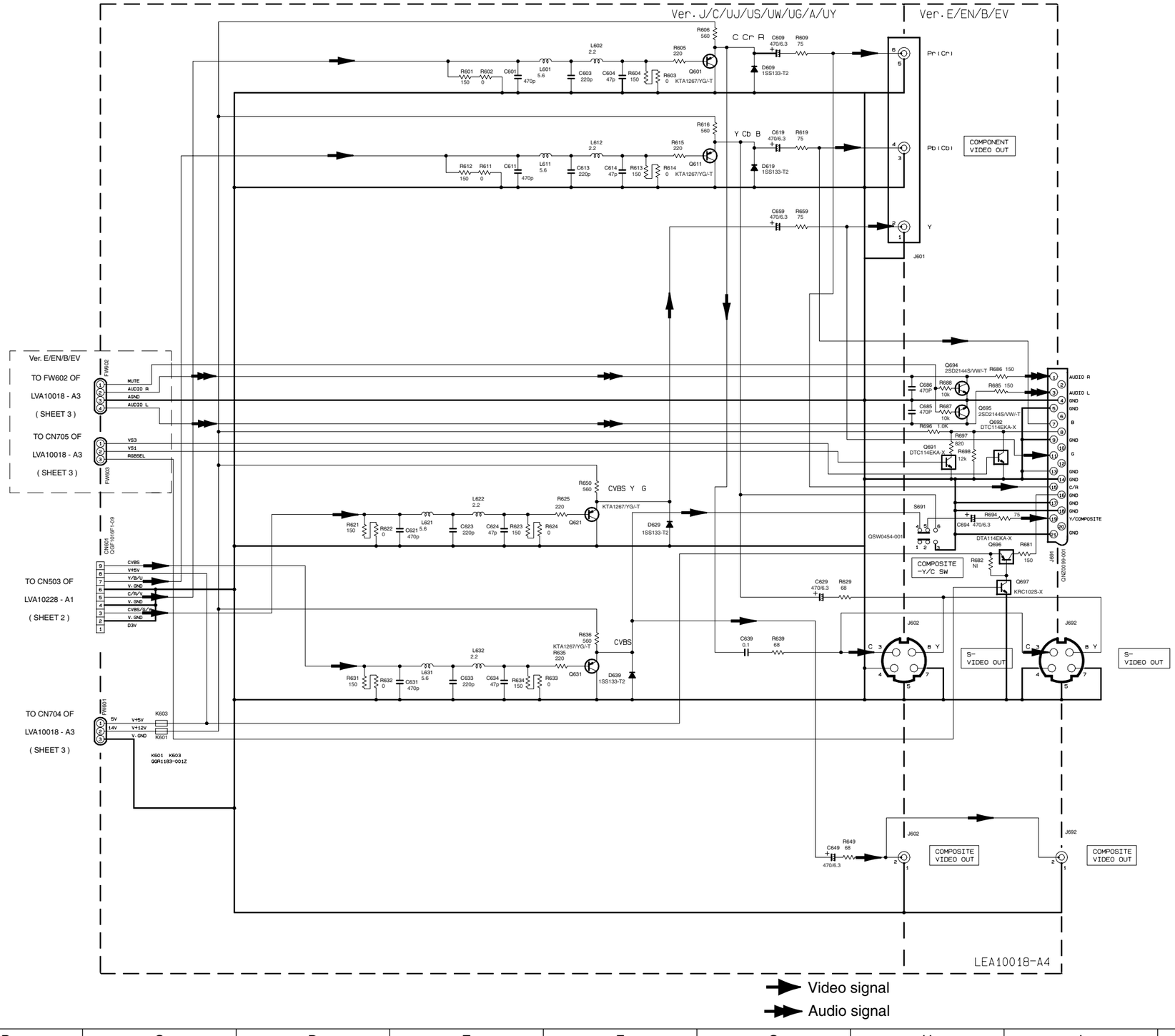
■ System control section (Sheet 3)



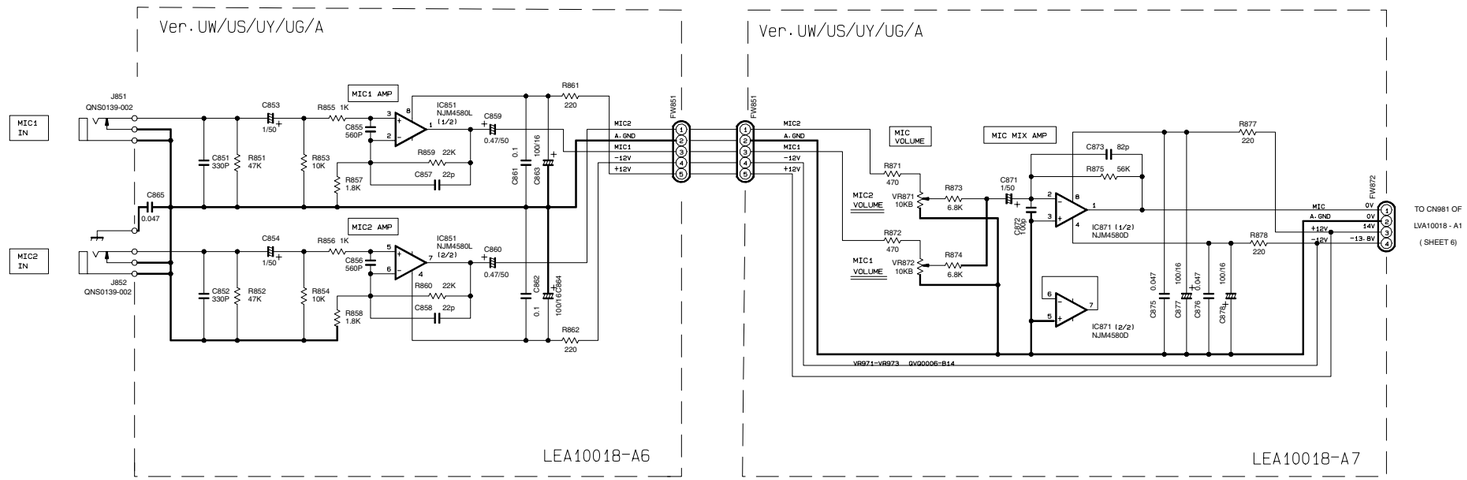
	US/UW/UY/UG/A	J/C/A/UJ /E/EN/EV/B
R765 R775	1.1k	560
C747 C757	470p	0.0022
R784 R794	1.1k	NONE
R762 R772	5.6k	680
C739 C749	6200p	NONE
R763 R773	2.2k	NONE
Q742 Q752	DTC114YKA-X	NONE
S702	QSW0454-001	NONE
R1717	5k	NONE

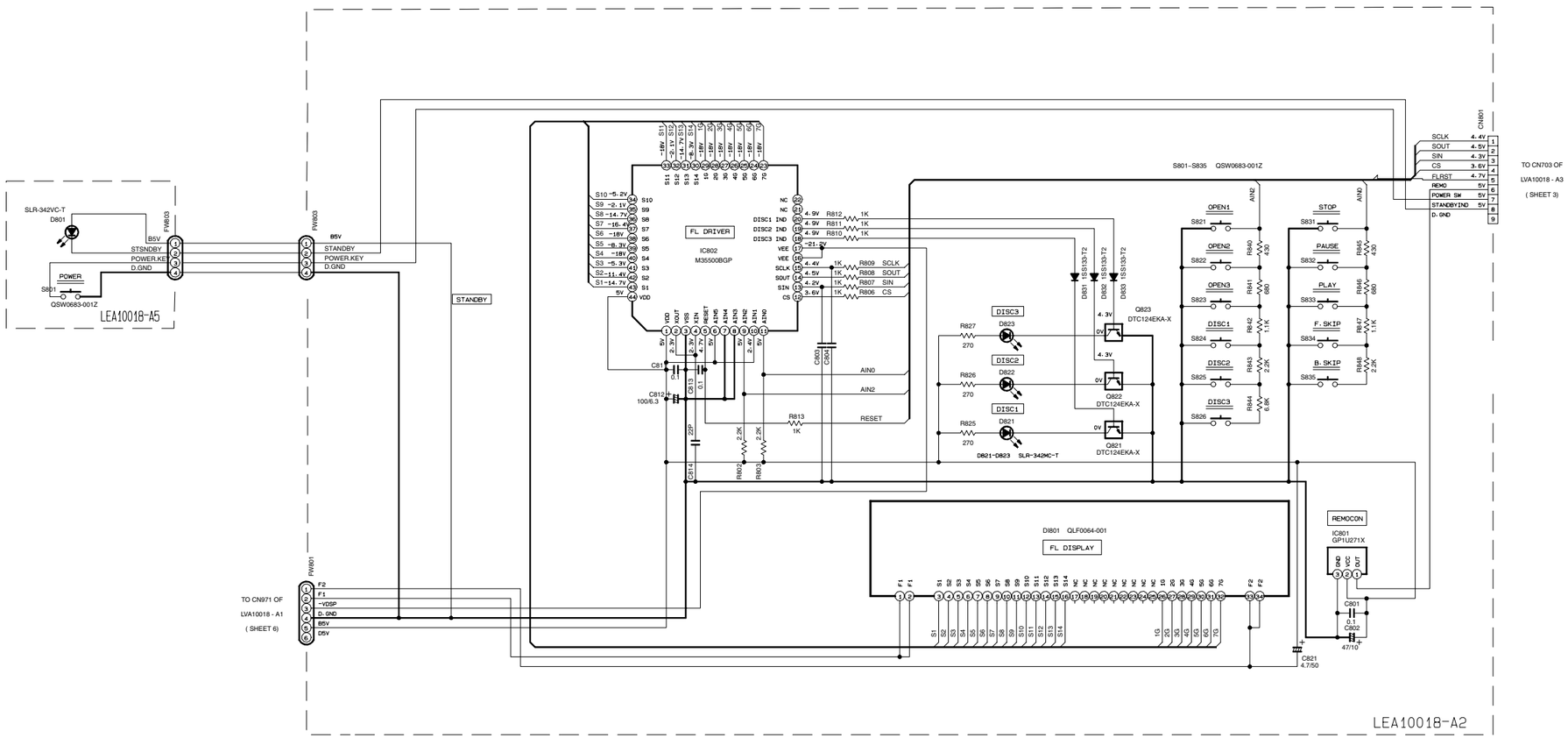
REF NO. \ Ver.	J/C/UJ	E/EN/B/EV	UW/US/UY/A /UG
R1715	10k	NONE	NONE
R795	NONE	4.7K	4.7K

■ Video section (Sheet 4)

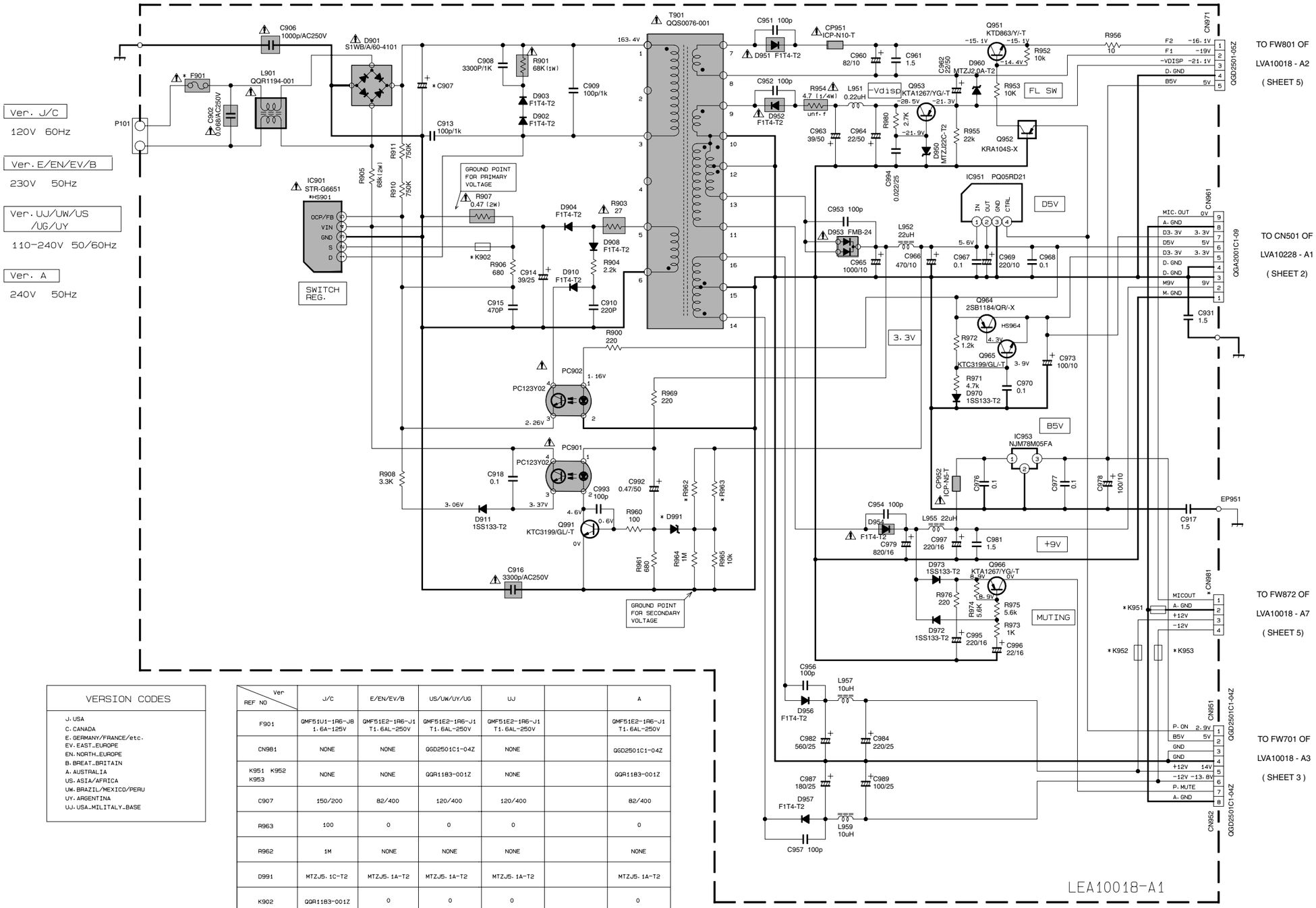


■ Front section (Sheet 5)





■ Power supply section (Sheet 6)



VERSION CODES
J. USA
C. CANADA
E. GERMANY/FRANCE/etc.
EV. EAST_EUROPE
EN. NORTH_EUROPE
B. BREAT_BRITAIN
A. AUSTRALIA
US. ASIA/AFRICA
UW. BRAZIL/MEXICO/PERU
UY. ARGENTINA
UJ. USA_MILITALY_BASE

REF NO \ Ver	J/C	E/EN/EV/B	US/UW/UY/UG	UJ		A
F901	GMF51U1-1R6-JB 1.6A-125V	GMF51E2-1R6-J1 T1.6AL-250V	GMF51E2-1R6-J1 T1.6AL-250V	GMF51E2-1R6-J1 T1.6AL-250V		GMF51E2-1R6-J1 T1.6AL-250V
CN981	NONE	NONE	QGD2501C1-04Z	NONE		QGD2501C1-04Z
K951 K952 K953	NONE	NONE	QQR1183-001Z	NONE		QQR1183-001Z
C907	150/200	82/400	120/400	120/400		82/400
R963	100	0	0	0		0
R962	1M	NONE	NONE	NONE		NONE
D991	MTZJ5.1C-T2	MTZJ5.1A-T2	MTZJ5.1A-T2	MTZJ5.1A-T2		MTZJ5.1A-T2
K902	QQR1183-001Z	0	0	0		0
HS901	NONE	E70306-002	E70306-002	E70306-002		E70306-002

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

■ Mechanism control section (Sheet 7)

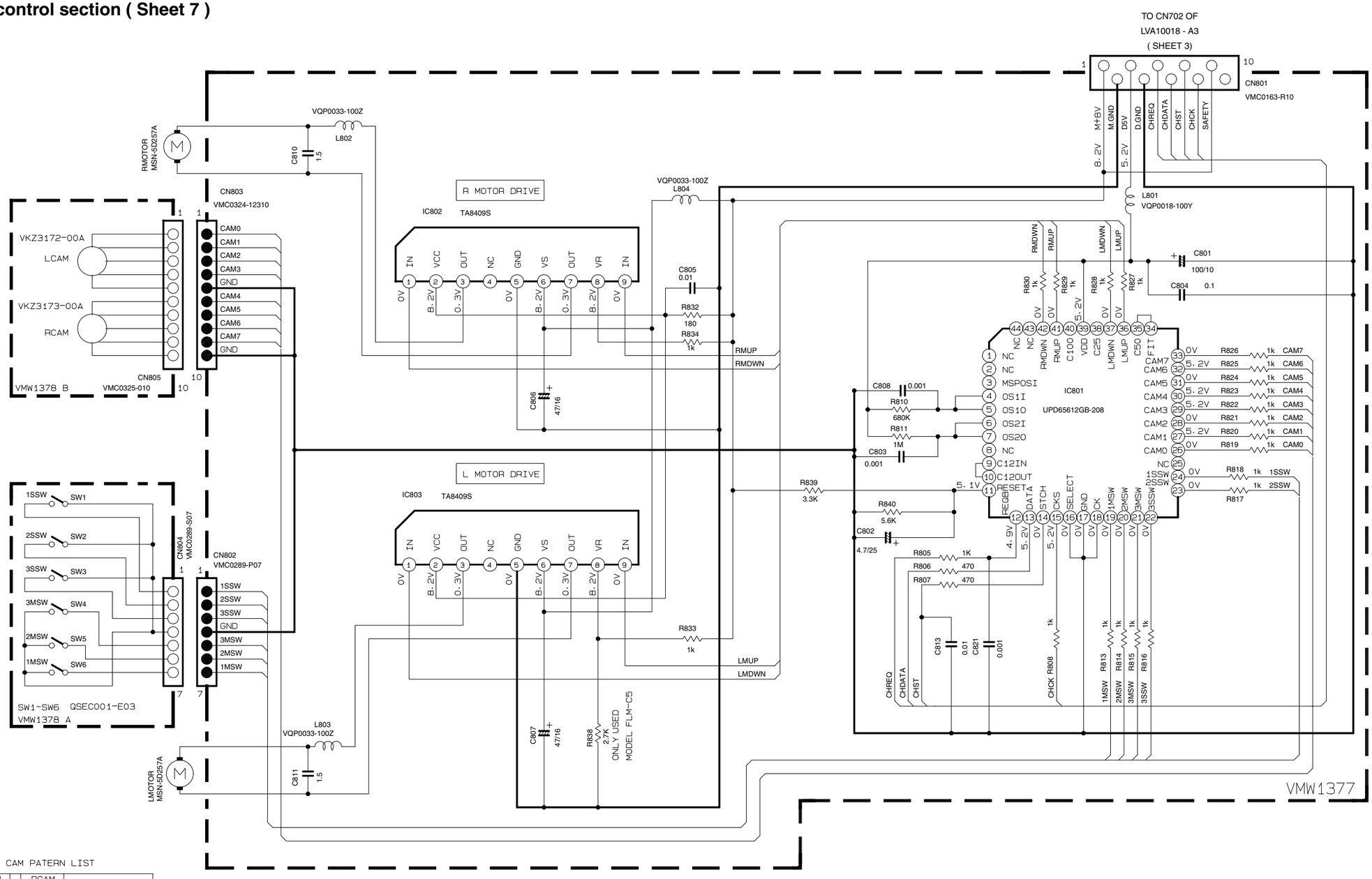


TABLE 1 CAM PATERN LIST

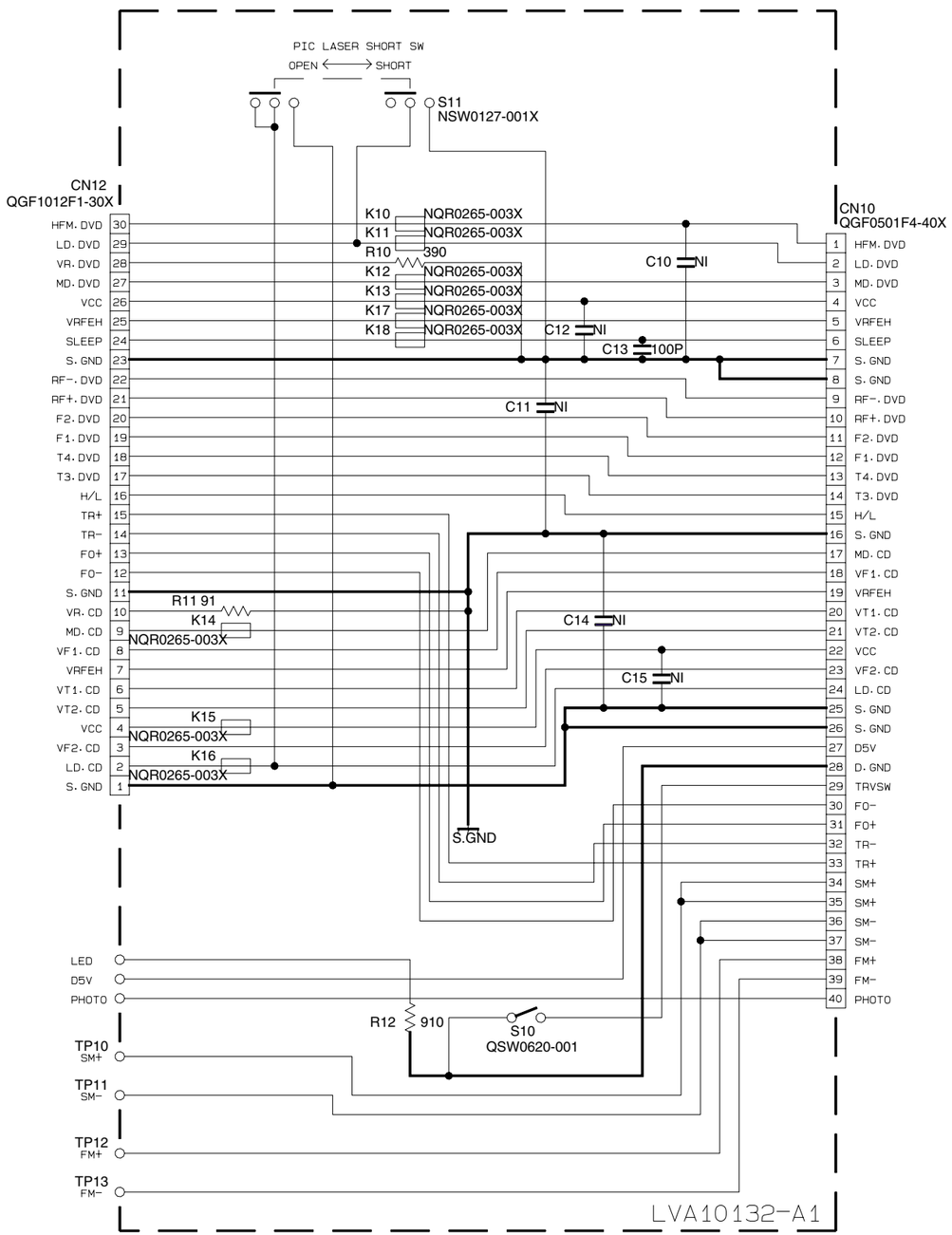
CAM NO. / POSITION	LCAM 0	1	2	3	COM	RCAM 4	5	6	7	POSITION
MAIN TRAY1	0	1	1	1	0	1	1	1	0	EMERGENCY
SUB TRAY1	0	0	1	1	0	1	1	0	0	TRAY1 STAND-BY
CAMR 1	0	1	0	1	0	1	0	1	0	TRAY1 CHACKING
MAIN TRAY2	1	0	0	1	0	1	0	0	1	TRAY2 STAND-BY
SUB TRAY2	1	1	1	0	0	0	1	1	1	TRAY2 CHACKING
CAMR 2	1	0	1	0	0	0	1	0	1	TRAY3 STAND-BY
MAIN TRAY3	1	1	0	0	0	0	0	1	1	TRAY3 CHACKING
SUB TRAY3	1	0	0	0	0					
OFF	1	1	1	1	0	1	1	1	1	OFF

0=0V
1=5V

NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION ---- DISC 1 CD STOP MODE
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).

(UF) UNFLAMMABLE CARBON RESISTOR
(MF) METAL FILM RESISTOR
(MO) OXIDE METAL FILM RESISTOR
(LL) ±20% LOW LEAK CURRENT ELECTROLYTIC CAPACITOR
(NP) NON-POLARISED ELECTROLYTIC CAPACITOR
(PP) POLYPROPYLENE CAPACITOR
(PS) POLYSTYROL CAPACITOR

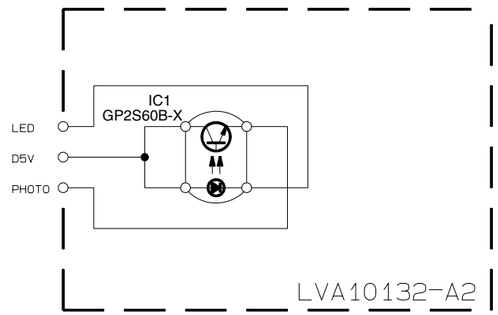
■ Connect section (Sheet 8)



TO CN101 OF

LVA10228 - A1

(SHEET 1)

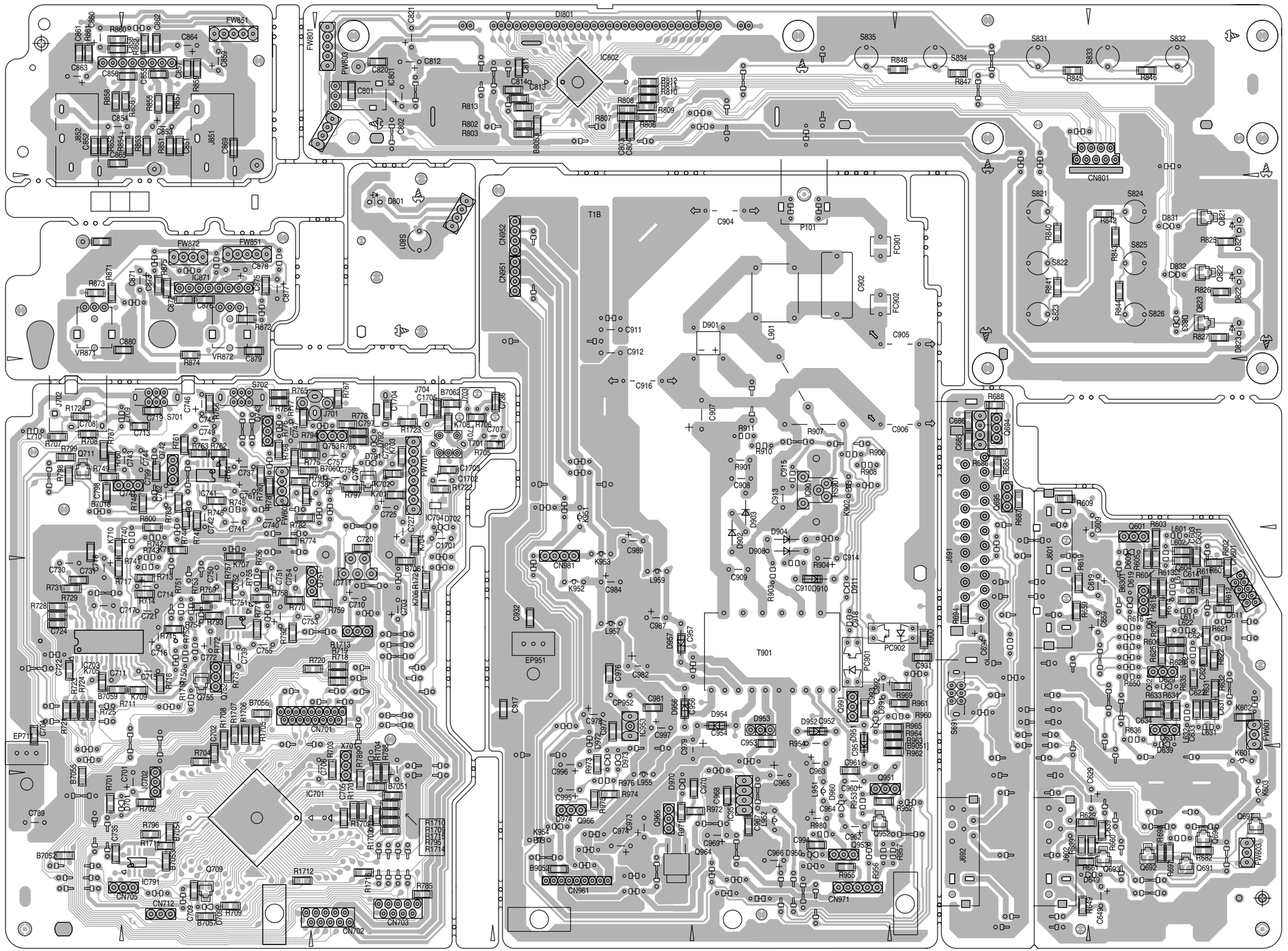


NOTES

1. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTORS ARE 1/6W ± 5% CARBON RESISTOR.
   ALL CAPACITORS ARE 50V CERAMIC CAPACITOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).

Printed circuit boards

■ Main board


FW851
FW872
FW801
FW803
DI801
IC802
S835
S831
S832
S833
S834
R848
R847
R845
R846
CN801
S821
S824
S822
S825
S823
S826
D831
D832
D821
D822
D823
T1B
P101
C904
FC901
FC902
C902
C905
D901
L901
C911
C912
C916
C907
R911
R907
C906
R901
R910
R906
R905
C915
C908
C913
C909
D903
D904
D905
D908
C914
R904
C910
D910
D911
R903
C989
CN981
K951
K952
K953
C984
L959
L957
C987
C957
T901
PC902
PC901
C931
R969
R961
R960
C991
C983
C982
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Q965
C973
K954
B9053
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Q964
R957
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R955
CN971
R688
C686
C685
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C694
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Q601
R603
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D621
D622
D623
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D628
D629
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D638
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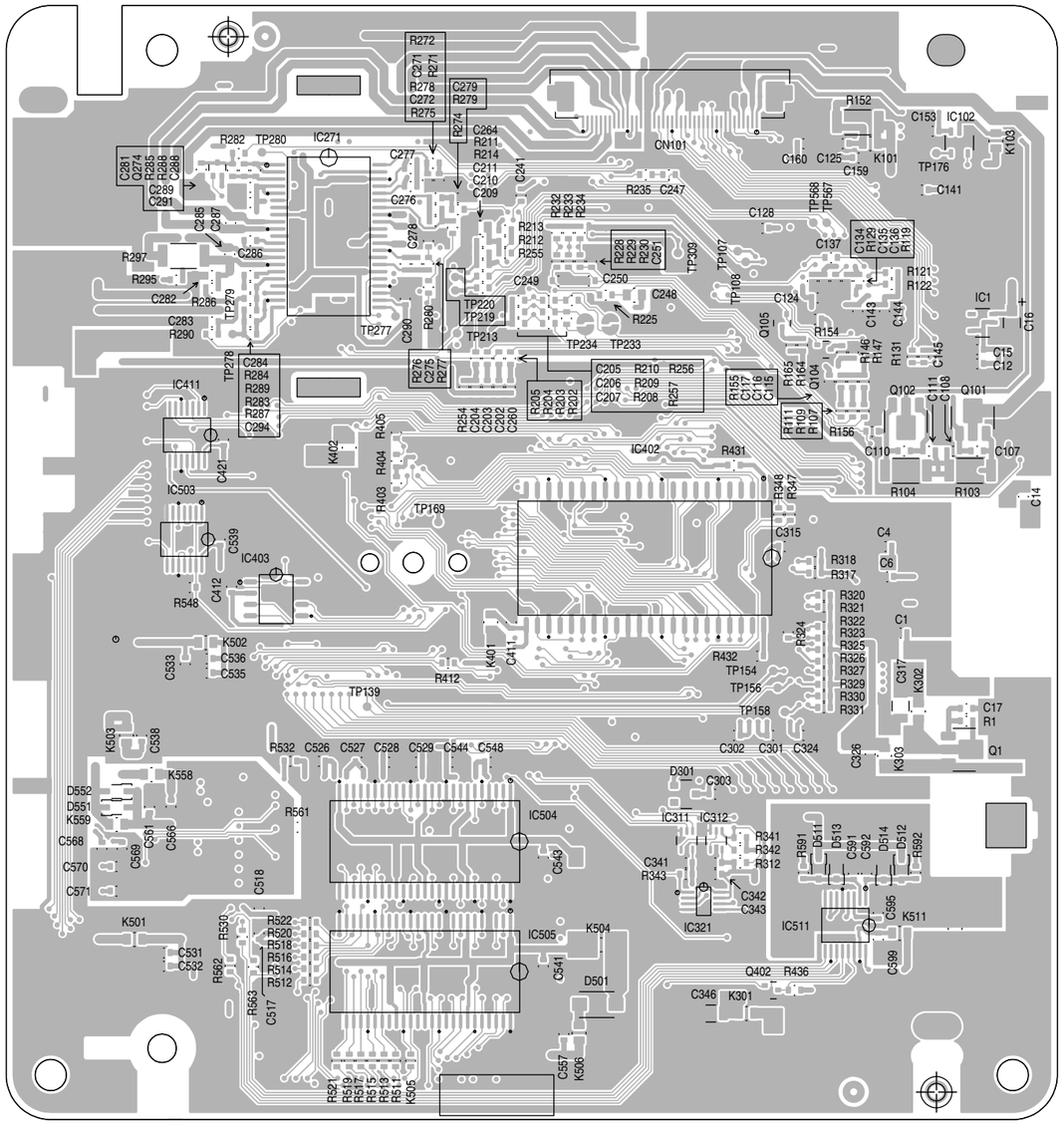
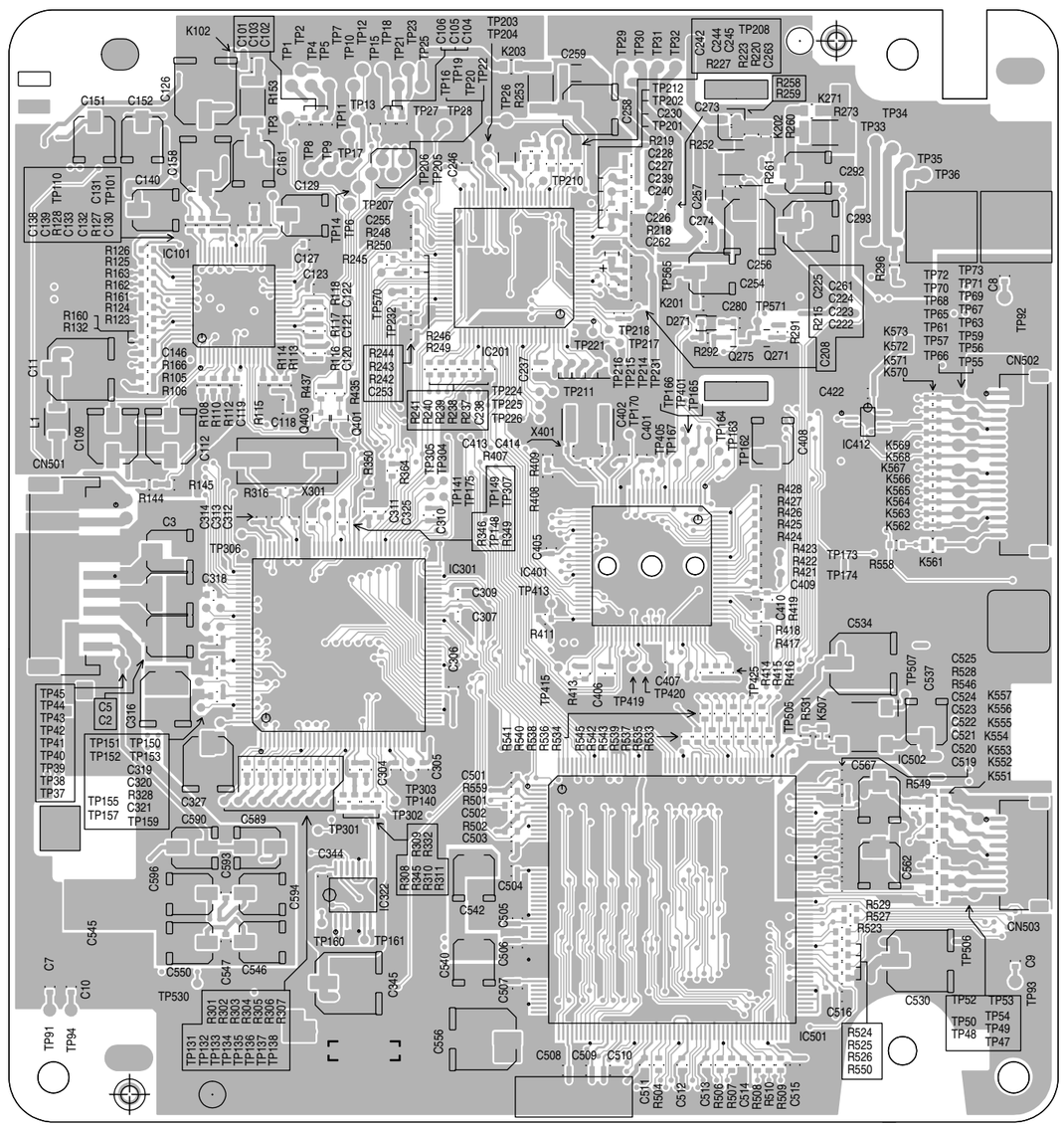
D640

■ Servo control board

Side A

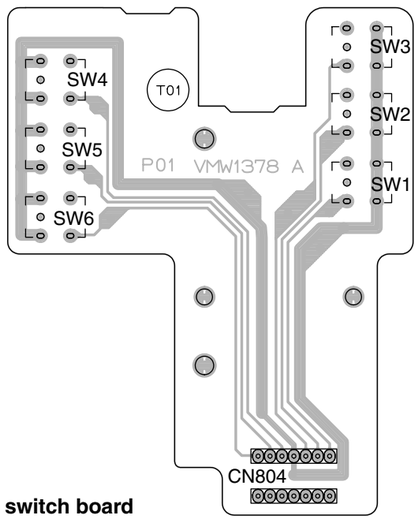


Side B

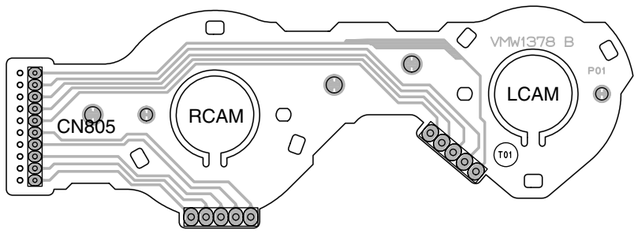


■ CD Changer mechanism switch board Block No. 0 3

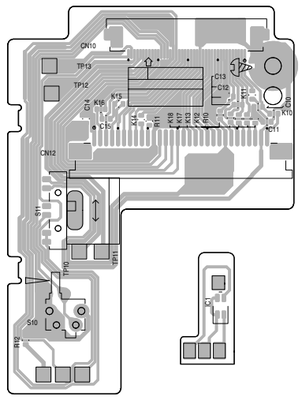
CD Tray switch board



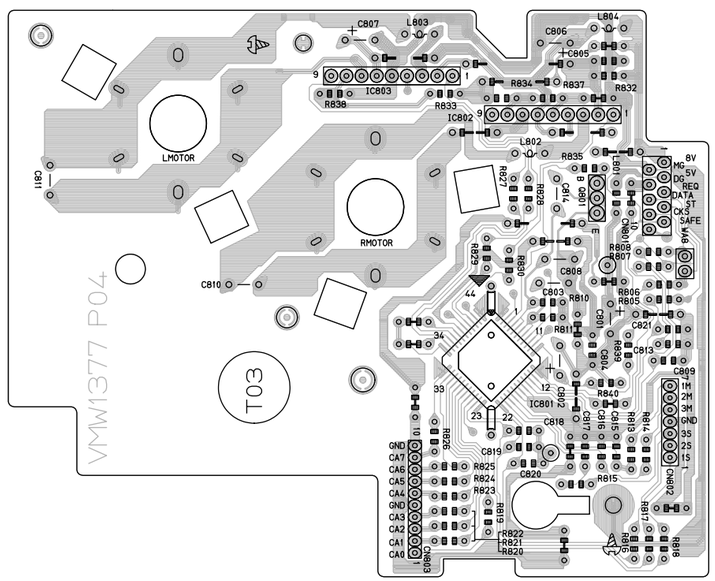
Cam switch board



■ Connection board Block No. 0 5



■ Mechanism control board Block No. 0 4



— MEMO —